

Chronic idiopathic orofacial pain: I: What is the evidence base?

G. Madland,¹ T. Newton-John,² and C. Feinmann,³

Chronic idiopathic orofacial pain is currently a problem for the specialists, but is this type of disorder peculiar to the face, and is there a role for the general dental practitioner? This article reviews the current understanding and management of medically unexplained syndromes and discusses their application in facial pain. A second article will merge this contemporary theory and clinical evidence into a management strategy, and stress the importance of early intervention in the primary care setting.

This is not a systematic review of facial pain management, since what little methodologically sound research that has been published is reviewed elsewhere, and the conclusions do not support any one mode of therapy over another.¹⁻⁴ In fact, after a generation of research, no single definitive aetiological factor has been identified for treatment; rather, it is high time the dental profession considered facial pain in common with other chronic idiopathic pain conditions.⁵

Chronic idiopathic orofacial pain is a clinical construct which is recognised by anaesthetists, psychiatrists and neurologists, but less familiar to the dental profession. It is an ill-understood group of conditions which may involve the whole of the mouth and face. Unfortunately, descriptions of disorders tend to be influenced by the background of the specialist assessing the patient. Thus patients who see maxillofacial surgeons have symptoms described in terms of clicking, sticking and locking of the temporomandibular joint

In brief

- Disparate modes of treatment are largely equivalent in efficacy
- Psychological distress is likely to follow the onset of pain rather than vice versa
- Facial pain has many features in common with other chronic pain conditions
- Education and self-management are of proven benefit in chronic pain

(TMJ) and pain in the associated musculature. ENT surgeons may retain Costen's⁶ outdated notion that the pain is caused by missing molar teeth and may refer onto maxillofacial surgeons or restorative specialists. Despite advice from the American Dental Association⁷ and the National Institutes of Health⁸ that 'there is no evidence linking occlusal abnormalities with pain', patients' occlusions continue to be adjusted by ill-informed practitioners, often leading to more problems for patients.

The US National Institutes of Health held a conference in 1996 to review the issues regarding the management of orofacial pain,⁸ concluding that significant problems hampered present diagnostic classifications and treatment of temporomandibular disorders (TMD). Five years later, there is no greater clarity in classification, yet a distinction is emerging in the literature between joint disorders (internal derangements and arthritides) and muscle

disorders (myofascial face pain),⁹ the latter being more commonly associated with psychological distress.¹⁰

Various other pain problems affecting the mouth and face have been described: atypical facial pain describes pain in the non-joint, non-muscular part of the face, often described as a dull ache and frequently crossing the midline. The pain is deep, and treatment provided by physicians is almost invariably conservative. Similarly, atypical odontalgia is toothache without a demonstrable cause. There are also odd burning pains in the tongue and gums, referred to as oral dysaesthesia or burning mouth syndrome, which describe disturbances in oral sensation unrelated to any clinical sign of pathology. The association between the various facial pain problems is not clear: it may be that patients start with joint symptoms and progress to a more generalised pain. Certainly patients with pain in the TMJ are younger than those with more generalised pain.¹¹ It is unclear whether there is any clinical value in distinguishing between these pain problems as treatment is identical for all.

Diagnosis

Patients presenting with low mood and no obvious structural abnormality are frequently and misleadingly labelled as having psychological, psychogenic or functional pain. In the wider chronic pain field, it has been acknowledged for some time that there is no more than a weak association between pain and observable tissue damage or identifiable pathological processes.¹² For example, up to 80% of patients complaining of lower back pain do not have x-ray evidence to account for their pain, and many asymptomatic individuals have significant levels of vertebral disc degeneration on x-ray.¹³ Wall stated that it was unwise arrogance to believe that our present diagnostic techniques are capable of detecting all relevant forms of peripheral pathology.¹⁴ Also, though as many as 50% of pain patients report significant depressive symp-

¹Clinical Tutor in Oral Medicine, Eastman Dental Institute & Hospital, 256 Gray's Inn Road, London WC1X 8LD, and Research Fellow in Health Psychology, Royal Free & University College Medical School, 2nd Floor, 48 Riding House Street, London W1N 8AA; ²Consultant in Clinical Psychology, Eastman Dental Institute & Hospital; ³Reader in Psychiatry, Eastman Dental Institute & Hospital, and Royal Free & University College Medical School
*Correspondence to: C.Feinmann
email: C.Feinmann@eastman.ucl.ac.uk

REFEREED PAPER

Received 15.05.00; Accepted 06.03.01

© British Dental Journal 2001; 191: 22-24

toms,^{15,16} depression is more likely to be a consequence of living with pain than a precursor to it.¹⁷ Knowledge is also increasing in how central processing factors such as central hyperalgesia and 'windup' can initiate and maintain central pain states.

Epidemiology

Facial pain is a common problem affecting at least 10% of the adult population and 50% of the elderly population, and its inadequate recognition and management present an enormous problem to the health service. The sex distribution is thought to be equal in the general population, but four times as many women as men seek help.

Initiation and maintenance

Many chronic facial pain patients specifically relate the onset of their symptoms to dental treatment itself. Other frequently reported precipitating factors include infections, toxins and stress, such as following a bereavement. However, once initiated, the patient may inadvertently exacerbate and thereby maintain the pain problem through her or his own actions. For example, a proportion of patients completely avoid movement of the jaw, which eventually results in muscular atrophy and greater joint stiffness. Others compulsively stretch and hyperextend the jaw numerous times each day, provoking local irritation. Frequent prodding and touching the painful areas of the face, teeth or gums is also common in facial pain patients, and is also likely to irritate already sensitive muscles and nerves.

Underpinning these behaviours is the patient's mood state. High levels of anxiety — related to concerns such as will the pain worsen, is there an undetected malignant cause for the pain, and so on — increase the perception of pain, as does a significantly depressed mood. Aside from the biochemical associations between pain and depression, depressive symptoms such as a loss of interest in daily activities and fatigue are critical factors in developing and maintaining a preoccupation with physical symptoms. Hence the established benefit of antidepressant medication and cognitive behavioural therapy in facial pain.^{18,19}

Education and self-management

Patients need to be informed about their symptoms. Education programmes are an important part of the care of chronic pain patients. In a randomised, controlled trial of education and physical training for women with fibromyalgia, of which orofacial pain may be a variant, the education programme was found to enhance self-efficacy, although changes in disability and distress were more modest.²⁰ An evidence-based educational booklet for back pain, published in the UK, has been found to produce a positive shift in beliefs and a significant reduction in self-reported disability, in a randomised controlled trial in primary care.²¹ These results are encouraging when one considers the potential effect of enhanced self-efficacy on perceived control over pain.

Although education programmes are advocated for facial pain, they have not been adequately evaluated. Relaxation training, however, has been shown to be equally effective as a conventional dental occlusal splint therapy²² and benefits may be longer-lasting.²³ With regard to joint and muscle problems, the benefit of anti-inflammatory painkillers has not been clinically investigated, and, whilst jaw exercises and occlusal splints are also simple and cheap therapies, the equivalence of efficacy²⁴ with, for example, biofeedback relaxation³ and acupuncture,⁴ suggests that modes of action are non-specific, or, to resort to a much over- and abused term, 'placebo'.⁵ The underlying mechanisms at work are likely to be reduction of anxiety and enhancement of perceived control over pain, achievable, at least in part, by considerate, reassuring information regarding what the patient is, and is not, suffering. Facial pain patient improvement after conservative dental treatment is modestly associated with changes in beliefs and coping with and without a brief cognitive-behavioural psychological intervention,²⁵ suggesting that such changes may accompany simpler treatments. A single trial of a psycho-educational group intervention showed modest but enduring reduction in facial pain-related interference compared with usual treatment.²⁶ A

brief, simple education programme, based on clear principles and using the underlying cognitions found in previous work, is currently being developed by our team and soon to be piloted on CD-ROM, after which time patient volunteers will be needed for recruitment onto a randomised controlled trial of its efficacy.

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