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Editorial comment

Mental and somatic co-morbidities in chronic orofacial pain conditions: Pain patients in need of multiprofessional team approach

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In this edition of *Scandinavian Journal of Pain*, Tero Taiminen et al. [1] report a high quality study of patients with burning mouth syndrome (BMS) and atypical facial pain (AFP) documenting important aspects of these not uncommon, but perplexing pain conditions. BMS and AFP are two chronic idiopathic pain conditions diagnosed only after exclusion of other pathologies, such as pulpitis, cracked tooth, periodontitis, myalgia in jaw closing muscles [2]. The patients were examined thoroughly by a multiprofessional and multidisciplinary pain management team: clinical examination by a neurologist, a dentist, and an othorhinolaryngologist, clinical neurophysiology examination with blink reflex and thermal quantitative tests, and structured interviews by psychiatrists trained in instruments for detecting psychiatric and personality disorders. They documented a high co-morbidity with a majority of patients (54%) having one or more other pain conditions, 52% having lifetime psychiatric disorders such as major depression, phobias, or panic disorders, and 19% having fearful and neurotic personality disorders. It is important that in a majority of cases both other pain conditions, psychiatric, and personality disorders existed before orofacial pain started. However, Tero Taiminen and co-workers emphasize that BMS and AFP *are not psychogenic* pain conditions. They argue that these patients most likely have a shared vulnerability for chronic pain conditions and psychiatric and personality disorders, most likely mediated by dysfunctional brain dopamine activity [1].

Burning Mouth Syndrome (BMS) or stomatodynia. is a continuously burning or hot painful sensation in the lips, tongue, or oral mucosa of no obvious organic cause. The bilateral burning pain is often accompanied by xerostomia, i.e. a feeling of dry mouth, impaired taste (dysgeusia), and feeling of numbness. A large majority of BMS-patients are post-menopausal women, indicating that a decreasing oestrogen activity [3], possibly via a decreased dopamine activity in the brain [4] may be important factors for vulnerability. Biopsies from affected mucosa examined with immunohistochemical and confocal microscopic co-localizations documented neurodegenerative alterations of small fibres of the oral mucosa in many but not all patients with BMS [5,6]. The prevalence in the general adult population is 1–5%, in the elderly female population it is higher [1].

Persistent idiopathic facial pain is the International Headache Society's term for *Atypical Facial Pain* [2,7]. It comprises pain conditions such as *Atypical Odontalgia (AO)*, phantom tooth pain, and idiopathic tooth ache [2].

AFP is a poorly localized deep persistent pain in a limited area of the face of idiopathic origin [2]. It is more frequent in female patients, but much less prevalent than BMS. AFP is not a neuropathic pain condition because a causative nerve lesion or nerve disease cannot be documented. According to the most recent IASP-definitions of neuropathic pain, documentation of a lesion or disease of the central or peripheral somatosensory nervous system is required [8]:

> "Neuropathic pain is *pain caused by a lesion or disease of the somatosensory nervous system. Note:* Neuropathic pain is a clinical description (and not a diagnosis) which requires a demonstrable lesion or a disease that satisfies established neurological diagnostic criteria. The term *lesion* is commonly used when diagnostic investigations (e.g. imaging, neurophysiology, biopsies, lab tests) reveal an abnormality *or when there was obvious trauma*. The term *disease* is commonly used when the underlying cause of the lesion is known (e.g. stroke, vasculitis, diabetes mellitus, genetic abnormality). *Somatosensory* refers to information about the *body per se* including visceral organs, rather than information about the external world (e.g., vision, hearing, or olfaction). The presence of symptoms or signs (e.g., touch-evoked pain) alone does not justify the use of the term *neuropathic*. Some disease entities, such as trigeminal neuralgia, are currently defined by their clinical presentation rather than by objective diagnostic testing. Other diagnoses such as postherpetic neuralgia are normally based upon the history. It is common when investigating neuropathic pain that diagnostic testing may yield inconclusive or even inconsistent data. In such instances, clinical judgment is required to reduce the totality of findings in a patient into one putative diagnosis or concise group of diagnoses."[8].

Atypical odontalgia (AO). The new definition of neuropathic pain means that trauma (e.g. from the needle of a local anaesthetic injection, oral surgery, apicectomy, endodontic treatment) to the oral

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trigeminal nerve fibres or nerve endings that is followed by chronic pain is a trigeminal neuropathic pain condition *only if* signs of nerve injury can be documented. A majority of AO patients report onset of pain in conjunction with dental treatment, most often endodontic treatment [2,9]. However, according to the "Note" following the 2011-definition of neuropathic pain, even if the patient claims subjective feeling of touch-evoked pain, but no objective signs of nerve damage is found, and the history clearly indicates that the pain condition started during or after dental treatment, the pain condition still does not qualify as neuropathic pain; it is "atypical odontalgia" [2,9].

Patients with atypical orofacial pain need a multidisciplinary or multi-professional team. Patients with persistent pain in the orofacial areas, often with multiple co-existing pain conditions with nociceptive, inflammatory, and neuropathic components, and a variety of mental disorders contributing to their complex health condition, all challenge the abilities of any health care provider. A dentist will not be able to evaluate pain outside the trigeminal area, a pain clinic specialist will not have necessary knowledge of orofacial pain conditions and they will not know enough about the mental health problems these patients bring with them. These patients are stigmatized as "difficult" patients. Few in the health care system feel capable of helping these patients single-handed. The patients have often had pain for much longer than the 3–6 months that define "chronic pain"[1,2,9], they have gone from dentist to dentist, from physician to physician without finding a cause, an explanation, or a cure for their pain.

Clearly, a team ideally comprising a dentist or oral surgeon, pain specialist, neurologist, clinical neurophysiologist, clinical psychologist or psychiatrist, and radiologist need to work together on the diagnostic evaluations and treatment of these patients [7,9–11]. However, in most Nordic countries, psychologists or psychiatrists with experience, knowledge, and interest in such patients are far between. Psychiatric and/or personality disorders both precede and coexist with the patients' chronic orofacial pain [1]. Their pain is NOT psychogenic pain [1]. However, their mental co-morbidities need special care, as their many somatic co-morbidities do. The team in Turku, Finland, indeed meets the criteria for a centre of excellence that offer these difficult patients thorough diagnostic work-up and multidisciplinary treatment, while they do research and develop evidence-based and optimal care. All university pain centres should look to Turku for inspiration in this regard.

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