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LETTER TO THE EDITOR

Stomatodynia (burning mouth) as a complication of enalapril therapy

Stomatodynia or stomatopyrosis (burning mouth) is a well-recognized disorder characterized by a burning sensation in one or several oral structures. Mucosal lesions, prostheses, dental treatment, parafunctional habits, allergy, hormonal imbalance, hematinics and vitamin deficiencies, diabetes, thyroid disease, salivary gland dysfunction, neurologic and phychogenic diseases have all been implicated in the etiology (Bergdahl and Anneroth, 1993); thus, stomatodynia is a challenging clinical situation as it seems to represent not a specific nosological entity but a multi-factorial symptom. Furthermore, several studies indicate that stomatodynia is fairly common (Bergdahl and Anneroth, 1993), which explains the increased attention which the condition has received in the recent literature.

The purpose of this communication is to draw attention to health care providers that burning mouth – in addition to the other etiologies – can occur as a complication of enalapril therapy.

In January 2003, a 50-year-old white man, governmental official of Greek origin, presented to the Oral and Maxillofacial Surgery Unit, Red Cross Athens General Hospital in Greece, complaining of burning sensation in the mouth which had been present for several months. The burning sensation involved the lingual, palatal and labial mucosa, constantly present during the day, while no aggravating or alleviating factors could be identified. The complaint did not disturb the patient's sleep or any of his daily activities. He has tried no medication to relieve his symptoms. His medical, family and social history were not contributory. There was no lymphadenopathy or other extra-oral clinical signs or symptoms. Intra-orally, the patient was dentate, and on clinical evaluation, all soft and hard tissues appeared to be healthy with no evidence of xerostomia.

The results of the subsequent haematological and biochemical investigations were within normal limits. The patient denied any allergic predisposition to foods, beverages etc., or being under recent psychological stress. Nevertheless, on requestioning, regarding drug intake, he mentioned that he was on enalapril (Renitec), 20 mg daily, for his mild hypertension for 6 months prior to the commencement of his symptoms. He was referred back to his internist with a request to switch his anti-hypertensive medication, but he was advised not to stop the medication until he had consulted his physician. Within 1 week of the regimen change, the burning sensation gradually disappeared and since then, he is free of symptoms.

Angiotensin-converting enzyme inhibitors (ACEIs) are extensively prescribed in medical practice for the management of hypertension and chronic cardiac failure (Gavras and Brunner, 2001). Since the introduction of captopril in 1981 (the first drug of the category to be used) a wide variety of adverse reactions have been reported, the commonest being skin eruption, although those attributed to enalapril occured much less frequently probably because of its different structure, which might confer a difference in metabolism (Alderman, 1996). Adverse reactions involving oro-facial structures have been rarely reported and include ulcers, self-limiting taste disturbance and potentially life-threatening angioedema (Seymour *et al*, 1997).

Vlasses *et al* (1982), were the first to report stomatodynia as a complication of ACEIs therapy. They described two cases of captopril and one case of enalapril-induced burning sensation of the tongue, throat and palate that has been described as being similar to the scalding caused by hot coffee or pizza, the so called 'scalded mouth syndrome' (SMS). Subsequently, a case of captopril-induced burning sensation limited to the tongue (glossodynia or glossopyrosis) and four more cases of captopril and lisinopril-induced SMS were described by Drucker and Johnson (1989) and Savino and Haushalter (1992) respectively.

Recently, Brown *et al* (1997), reported two more patients with SMS caused by enalapril and captopril respectively; interestingly, in the first case, the symptoms were relieved after the medication regimen was changed from one ACE inhibitor (enalapril) to another (lisinopril and later acupril), suggesting that ACE inhibitors do not necessarily demonstrate cross-reactivity (Jackson *et al*, 1988). In the second case, the symptoms started while the patient was taking captopril for approximately 7 years; the rationale for the occurrence of this adverse reaction after long term use without problems remains unexplained.

Oral health care providers should be aware of the potential of these commonly prescribed medications such as ACEIs to give rise to various oral mucosal

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lesions or complaints such as stomatodynia. By doing so, inappropriate therapeutic interventions can be prevented, as by discontinuing the regime, the patients are dramatically relieved from their symptoms.

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