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Self-Inflicted Oral Mucosal Injuries.

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ABSTRACT

Self-inflicted or factitious injuries of the oral mucosa are not rare and may appear in various forms often mimicking other oral lesions. Detailed medical history and clinical examination will usually reveal the underlying cause of the injury. However, if the patient is not aware of the bad habit, it will take longer for the dentist to figure out the underlying cause. Treatment relies on the elimination of the bad habit and lesions could be easily treated with topical corticosteroids in orabase. However, no therapy is successful unless patient does not stop the factitious habit. This article emphasizes that certain lesions of the oral mucosa might result from the self-inflicted habits of which patient is sometimes unaware of.

Keywords: oral mucosa, injury, self-inflicted.

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INTRODUCTION

The maxillofacial region may be subjected to self-inflicted injuries. Un-deliberate creation of oral lesions is seen in patients with La Tourrett syndrome, Lesch-Nyhan syndrome, familial dysautonomia, autism and mental retardation (1). Siragusa et al. (2) examined 245 institutionalized mentally retarded patients and found numerous lesions (on the tongue, lips, oral mucosa, perioral skin, gingivae and teeth) as a result of cheek and tongue biting as well as nodular lesions, which varied differently according to the different degrees of mental retardation. Ji et al. (3) reported a case of 13 years old girl suffering from autism which presents with diffuse swelling of the lower lip and necrotic slough as well as ulcer. The deliberate creation of orofacial lesions, is an indication of underlying psychiatric disease, most commonly seen in patients with personality disorders such as bipolar disorder or obsessive-compulsive disorder. Clinically they may present with subtle forms but also as horrific injuries. In the oral cavity self-inflicted lesions may range from simple mucosal erosions and periodontal damage to tooth extraction and partial glossectomy (4,5,6,7,8). Self- inflicted injuries might manifest as various lesions usually as single ulcer or nodular lesions such as fibroma even though fibroma is more commonly result of chronic mechanic irritation due to other causes. Single ulcer located on the part of the oral mucosa which can be self- bitten might be result of bite trauma. Otherwise, trauma may be caused by teeth, food, dental appliances, dental treatment, toothbrush and self-inflicted lesions, etc. The diagnosis is usually quite simple based on the detailed medical history (unless the patient is unaware of the for example bad habit) and clinical finding. Diagnosis of self-inflicted lesions are sometimes challenging as the patients detailed medical and dental history tend to be vague and misleading (9). The aim of this article is to describe 8 cases of self-inflicted lesions together with differential diagnosis and therapeutic possibilities.

CASE REPORTS

1. A male patient 70 years old was admitted to the Department of oral medicine due to the mechanical trauma of the maxillary gingiva which was done by his lower teeth as he lost his denture. He was advised to get a new denture. Otherwise he was suffering from hypertension and psychological disturbances.

Figure 1. Self-inflicted irritation of the alveolar ridge mucosa due to the loss of upper denture.

2. A male patient 50 years old was referred to the Department due to tongue fibroma which developed due to the bad habit of tongue thrusting. Otherwise the patient was healthy but admitted when stressed out, bad habit of tongue thrusting would make him peaceful. Treatment consisted of fibroma removal and elimination of bad habit.

Figure 2. Self-inflicted tongue thrusting resulting in fibroma.

3. Boy 10 years old was referred to the Department of oral medicine due to the lesion on the tongue persisting for few weeks. Otherwise he was healthy and denied the bad habit of tongue biting. A biopsy was performed and histopathology showed unspecific inflammation. Afterwards he admitted that he has bitten his tongue due to the stress as parents were having divorce at the time. Treatment consisted of betamethasone in orabase and stopping of the tongue biting.

Figure 3. Self-inflicted tongue biting.

4. A boy 11 years old was admitted at the Department due to the lip lesion. Day before he had dental treatment on the second lower premolar at the Paedodontic Department and was given infiltration anaesthesia. Unaware of the numbness of the lip he was biting it profoundly which resulted in massive lip ulceration. Otherwise he was healthy. He was given betamethasone in orabase to be applied three times a day and during the next week the lesion completely healed.

Figure 4. Self-inflicted lip biting after local anaesthesia.

5. A female patient 21 years old was seen at the oral medicine specialist due to the white hyperkeratotic lesions on the buccal mucosa. She was otherwise healthy but when stressed out she would bite her buccal mucosa. Treatment relied on the stopping of the bad habit, giving diazepam tablets (2 mg twice a day) and topical steroid with salycilates in orabase (Diprosalic). The lesions subsided after two weeks completely.

Figure 5. Self-inflicted cheek biting.

6. A female patient, 75 years old was referred to our Department due to the lip lesions. Patient suffers from hypertension and hypothyroid disease and is taking anthypertensive and thyroid hormone. Patient was aware of the bad habit (lip licking). She was advised to stop the bad habit and was given topical corticosteroid, antibiotic and antifungal (Triderm) to be applied three times a day. Patients' condition improved in a week time.

Figure 6. Exfoliative cheilitis due to repeated licking of the lips.

7. A female patient 17 years old was seen at our Department due to the lower lip lesions which appeared few weeks after orthodontic therapy was initiated. Patient was otherwise healthy and was not taking any medication. During detailed medical history she admitted that she suffered from bad habit of “sucking” the lips on the orthodontic appliance. She was advised to stop the bad habit and was given corticosteroid in orabase (betamethasone). The lesions subsided two weeks after initial appointment.

Figure 7. Ulceration induced by “sucking” orthodontic appliance.

8. The male patient, 35 years old was seen at the Department of oral medicine due to extensive ulcerations on the upper right gingiva. He admitted intensive tooth-brushing during the past few days. Otherwise the patient was healthy and not taking any medication. He was advised to stop intensive tooth-brushing with unsuitable toothbrush and was given corticosteroid in orabase to be applied three times a day. The lesions disappeared in few days.

Figure 8. Gingival lesions due to excessive tooth-brushing.

DISCUSSION

Davis et al. (10) reported that irritation resulting in oral mucosal alterations is a common occurrence caused by a wide variety of exposures and insults to the oral cavity. Thus, it is important that the clinician is aware of the clinical manifestations and aetiology of the condition. The same authors (10) concluded that the most irritation in the oral cavity tends to reverse quickly when the causative agent is removed which is very true for lesions which are self-inflicted. Thumfart et al. (11) concluded that permanent damage to the covering squamous epithelium might lead to the development of the oral dysplasia and carcinoma. Kashyap and Kashyap (9) report a case of 85 year old patient with an unstable mental condition, presenting with the carcinoma of lip due to repeated toothpick injury. In the published literature there have been reports on suspected malignancy such as liposarcoma and lymphoma/leukaemia which turned out to be self-inflicted lesions (12,13).

Sometimes self-inflicted lesions resemble known oral diseases such as oral vesiculobullous one as seen on Figure 4. However, in this particular case there was a temporal relationship of previous restorative treatment in this boy which was performed with local anaesthesia. Otherwise the boy was healthy but as the lip was numb he started to bite it. Barrett and Buckley (14) reported a case of the woman with self-inflicted oral and skin lesions. Oral lesions were painful mouth ulcers on the soft palate and lip and it seems that she used scissors, caustic soda and fine-tipped paintbrush for that purpose. Initially lesions resembled oral vesiculobullous disease. Zonuz et al. (1)[1] reported a case of young woman who presented with unilateral bullous and ulcerative oral as well as erythematous facial lesions that were initially diagnosed as pemphigus vulgaris but later it was concluded that they are self-inflicted injuries. Reports from Haesman et al. (15) and Kotansky et al. (16) reported cases of self-inflicted lesions mimicking mucous membrane pemphigoid.

Differential diagnosis when encountering oral ulcerations might include oral squamous cell carcinoma, infections (histoplasmosis, blastomycosis, mucormycosis, herpes simplex, syphilis), recurrent aphthous ulcerations, vesiculobullous diseases.

Contrary to the oral mucosal lesions, self-inflicted gingival lesions usually do not mimic other gingival pathology. Most of them are bizarre, often multiple and produced by picking or scratching of the gingiva with fingernail, knives, toothpick, stick of sugar cane, strands of hair or toothbrush (17). It is well recognized that overzealous tooth brushing leads to gingival ulcerations as seen on Figure 8.

Differential diagnosis might include desquamative gingivitis.

Diagnosis should be based on the detailed medical history and biopsy specimen which is a gold standard when patient is not admitting the factitious habit or is unaware of the factitious habit as well as when lesions do not heal after two weeks of corticosteroid therapy.

Treatment relies upon the elimination of the factitious habit and topical corticosteroid (betamethasone or clobetasol dipropionate) treatment to be applied three times a day in orabase. Bhatia et al. (18) suggested use of prosthetic shields such as soft mouth guard in the management of self-inflicted lesions due to habitual biting of oral mucosa in two normal healthy children. The same authors (18) concluded that counselling and when needed pharmacological therapies for the treatment of the underlying psychiatric disease should be employed in certain individuals.

One of the possible consequences of self-inflicted lesions is development of oral cancer, especially if traumatic injuries last for longer period of time. The patient has to be informed upon the consequences of the persistent injuries of the oral mucosa and in some of the patients this might be sufficient in stopping the factitious habit.

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