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DENTAL SCIENCE
Case Report

Frequent Lesions of the Oral Cavity Related to Dental Treatment and Parafunctional Habits

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Abstract

Traumatic ulcers of the oral cavity are one of the most common lesions that are easy to find for the general practitioner.

Iatrogenic injuries that are induced by the practitioner are common in the oral mucosa, less in other structures such as teeth, bone or nerve. These lesions are rarely published, so the findings could lead to a bibliographic false perception of low prevalence. In the majority of cases originate a certain discomfort in the patient, and in most cases do not cause permanent problems in it. The large capacity of the mucosa tissue repairs although frequent causes are not also subject to complaint to the professional.

We review the literature and presented several clinical cases of iatrogenic injuries and lesions related to parafunctional habits so they would be included in the field of Oral Medicine

Keywords: *Iatrogenia; Ulcers; Parafunctional habits; Traumatic*

Introduction

In dentistry iatrogenic trauma can be explained as any alterations made by the dentist during dental procedure or being performed either by improper use of certain substances. During dental procedures lots of instruments (rotary instruments, laser, electric devices scalpel), or chemicals such as those used in the methods of endodontics and restorative treatments and intraoral devices are used and sometimes once that they get in contact with the oral cavity or due to its misuse can produce different traumatic injuries [1-3].

In the present paper we review the diagnosis and management of iatrogenic lesions produced on the oral mucosa, while performing various dental procedures. Also there are many parafunctional habits such as cheek bitting or suction that may cause a wide spectrum of oral lesions that they practitioner should know how to diagnose and prevent [4,5].

Clinical Cases

Case 1: Exophitic Lesion Due to Device Removable

We report the case of a girl of 15 years in orthodontic treatment with removable appliances having an exophytic lesion on the hard palate. The lesion has multiple fibrous nodules erythematosus colour corresponding to the shape of the orthodontic device used (Figure 1).

We need to make sure that the patient has not any allergies related to the materials of the device and make differential diagnosis to lesions due to the application of any chemical substance.

Treatment consisted of the removal of orthodontic appliance (Figure 2) for a period of 15 days, during which time the exophytic lesion was reduced in size without surgical removal leaving a slightly erythematosus surface (Figure 3).

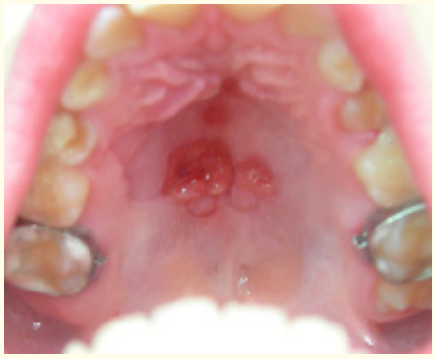


Figure 1: *Multiple fibrous nodules.*

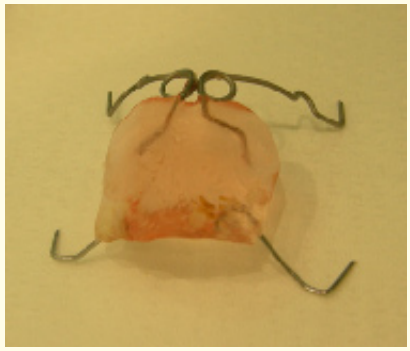


Figure 2: *Orthodontic Device.*

Figure 3: *Resolution after 15 days.*

Case 2: Burn for Self Etching Adhesive

We report the case of a 31 year old woman presenting a white lesion on the lower lip and labial gingiva pieces 34-36 (Figure 4 and 5). The lesion appears within seconds of accidental fall of self-etching adhesive on both surfaces.

This kind of lesions are rarely to be published because are due to an iatrogenic procedure. Normally appears accidentally due to involuntary movements of the patient, lack of dental isolement or because the dentist does not manage properly the self-etching adhesive.

Immediate treatment consisted of washing the area with plenty of water in order to remove the acid and prevent further injury. The lesion resolved spontaneously without sequelae for the patient.

Figure 4: *Burn for self etching adhesive.*

Case 3: Traumatic Injury (Bite) Post Anaesthetic Infiltration

The most frequent injury occurred after application of local anaesthesia for dental procedures, is the bite. These lesions are more frequent after an inferior alveolar block. After this injury occurs the most common finding is erosion, ulceration or hematoma.

To avoid the appearance of these traumatic injuries the dentist needs to explain the patient the convenience of chewing control, after the anaesthetics has disappeared.

Figure 5: *Hematoma after the bite.*

Case 4: Lesions Caused by Rotatory Instruments

We report four cases of soft tissue lacerations. The lesions caused by rotatory instruments are rarely reported also. This type of lesions occurs during proceedings such as polishing, prosthetics and surgical treatments.

They are caused by iatrogenic procedures, sometimes in patients with a poor mouth opening, involuntary movements or due to a lack of experience of the dental practitioner. In neither case was necessary to apply stitches (Figure 6-9). The lesions resolved spontaneously.

Figure 6: *Lesion by diamond drill.*

Figure 7: *Lesion by diamond drill.*

Figure 8: *Lesion by polishing disc.*

Figure 9: *Lesion by polishing disc.*

Case 5: Morsicatio Buccarum Due to Cheek Bitting

Morsicatio Buccarum is a benign alteration caused by repeated trauma to the oral mucosa through repeated bitting over time; which detaches the surface epithelium of the affected mucosa. Its appearance consists of whitish, frayed areas with an irregular appearance that disappear once the trauma is eliminated.

It is very important to make a good clinical history and identify the parafunctional habits. We need tom make differential diagnoses with other clinical entities such as White Spongeous Nevus and Lichen Planus. No treatment is required, but it is necessary to monitor parafunctional habits to prevent changes in the structure of the epithelium that leads to a precancerous lesion.

Figure 10: *White and erosive areas due to bitting.*

Figure 11: *White areas due to bitting.*

Case 6: Exphophytic Lesion Due to Suction

Sessile or pedunculated tumour, broad base, asymptomatic, smooth and uniform, which maintains the same colour as the mucosa on which it settles. Its size is variable. Its growth is caused by an irritant or trauma such as suction or bite.

The dental practitioner should control the parafunctional habits and needs to control any changes related to growth and colour. We can see the same type of lesion but we can find a white area on the upper surface due to friction. Depending on their location and size they may either be monitorized or complete surgical excision may be performed.

Figure 12: *Exophitic tumour by suction.*

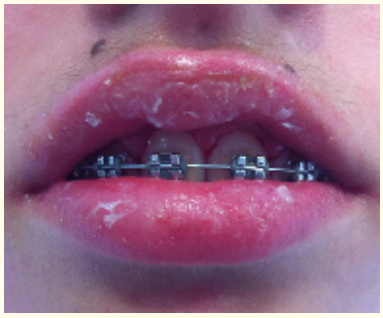
Figure 13: *Exophitic tumour by suction.*

Case 7: *Esfoliative Chelitis* Due to Rubbing Lips

It's an inflammation of the vermilion border of the lips. The main signs are characterized by cracking, and peeling of the skin of the lips. Lip licking, biting, or rubbing habits are frequently involved.

The dental practitioner should inform the patient about the importance of maintaining healthy lips, so we need to control parafunctional habits and avoid sun exposure. Sometimes these cracked lips are due to parafunctional habits and also due to the orthodontic appliances such as we show on this case. We cannot remove the orthodontic appliance but we can improve the healing.

Application of isolation and healing ointments are useful, as well as the use of lip balm. The most important is avoiding the rubbing.



Conclusions

The realization of dental treatment involves materials and instruments that can injure anatomical structures of patients. Careful handling of the material and monitoring protocols established in each therapeutic technique minimizes possible iatrogenic induced lesions on mucous membranes, teeth, bone or nerve structures.

Also it is very important the identification of different parafunctional habits so we can prevent the appearance of oral lesions that sometime can lead to oral cancer.

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