Preserving Hard Tissues: A Newer Treatment Approach

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Abstract

A small oral ulcer can be very distressing to a patient. When such patients seek dental care, oral physicians play a major role by symptomatic and supportive treatments. If the causative agent is sharp tooth cusp, it is usually managed by coronoplasty or at times, by extraction of the offending tooth. Here the authors present case reports of patients having chronic ulcers that were managed with a new alternative approach of preserving the tooth by using a cheek retractor to relieve irritation from the sharp teeth and were followed up with good results.

Introduction

Various systemic diseases can also present themselves in the form of chronic ulcers in oral cavity like oral submucous fibrosis, lichen planus, erythema multiiforme, pemphigus etc. The management of ulcer is conventionally done with topical local anaesthetic gels, topical corticosteroids, multivitamins, etc. However, if the cause of irritation is not removed, these treatment modalities fail and the ulcer persists. The literature also states that chronic irritation can even lead to development of atypical changes in the epithelium and connective tissue. One of the significant causes of squamous cell carcinoma is believed to be sharp tooth irritation. The only option left in such cases is either cusp reduction which leads to loss of tooth structure and subsequent problems like dentinal hypersensitivity. Even if we follow the traditional way of getting rid of the irritation, i.e. extraction of the offending tooth, the opposite tooth supra erupt causing disruption in occlusion. As we are heading towards practice of conservative dentistry, here we present a different treatment approach that can be used as an adjunct to the conventional treatment to accelerate the healing process of chronic recurring ulcers.

Case Report

A medically fit female patient of 37 years of age reported to our clinic with the chief complaint of ulcer present on left buccal mucosa since 1 year. There was severe pain associated with the ulcer and the patient was unable to chew food from the same side. The patient's past medical and dental history were not significant. On examination, it was found that there was chronic irritation from the sharp cusps of left maxillary posterior teeth. Erythematous lesion was present on left buccal mucosa which was diffuse, irregular in shape, extending opposite the surface of molars, in the line of occlusion (Fig. 1A). It was extremely tender on palpation. Based on clinical examination, and investigations, the patient was diagnosed of pemphigus. Besides the conventional treatment for pemphigus, a cheek retractor (Figure 1B) was fabricated extending on the buccal surface of all left maxillary molars to speed up the healing process. Patient was instructed to use the prosthesis for whole day till the symptoms improved and was followed up. After 7 days, it was seen that the ulcer healed completely (Fig. 1C). There was no recurrence of the lesion upto 2 months of follow up. A medically fit 27 years old male patient reported to our clinic with chief complaint of discomfort in the left buccal mucosa. On examination, linea alba was pronounced with peeling of the superficial layers (Fig. 2A). The hyperkeratinised tissue was scrappable. There was no history of bruxism. The patient was advised to use cheek retractor (Figure 2B) during day time to avoid conscious biting of the buccal mucosa. On follow up, it was seen that the patient's symptoms improved in a week's time (Fig. 2C). Another case of a medically fit 25 year old male patient who reported in our clinic with the chief complaint of cheek biting during closing mouth and was also managed using similar cheek retractor. On examination, it was seen that there was chronic cheek biting of both left and right sides. There was hypertrophy of buccal mucosae causing extreme discomfort and pain to the patient. The patient was managed by fabricating a cheek retractor. The patient was instructed to use it whole night and approx 6-7 hours in the day time. The patient's symptoms improved within 10 days of fabrication of the prosthesis.

Discussion

Ulcer can be defined as a breach in the continuity of surface epithelium of the skin or mucous membrane to involve the underlying connective tissue as a result of micro molecular cell death of the surface epithelium or its traumatic removal. The causes of ulcer can be local or systemic. Acute ulcers heal usually in 5-7 days; however chronic ulcers usually take many days to heal and are very discomforting for the patient. A common potentially malignant lesion; Oral submucous fibrosis may also present itself in the form of chronic ulcers on buccal mucosa. It is a chronic debilitating disease of the oral cavity associated with arecanut (betel-nut) chewing, affecting all parts of oral mucosa and oro-nasopharynx. It has a
malignant transformation rate of about 0.5-6%. Clinical symptoms are progressive inability to open mouth, vesicles, ulcerations, or blanched oral mucosa. Trauma from sharp cusps of teeth or cheek biting like in our case can also lead to chronic ulcers and may even transform into malignancy. In all such cases, cheek retractor can be fabricated to avoid the source of chronic irritation by cusps of teeth which may aid in the accelerated healing of the lesion. The material used for fabrication of cheek retractor is acrylic which is a bio compatible material, non-toxic to oral tissues. It is supported via Adam's clasp. The retractor is fabricated in such a way to cover the buccal surfaces of teeth causing trauma.

Conclusion
A cheek retractor should be included as an adjunct to the conventional line of treatment in the management of chronic ulcers as eliminating the cause of irritation to the ulcer is indispensable to avoid further complications and for complete healing. Although this newer modality has been tried on a limited number of patients, authors are looking into more number of patients.

References

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