



Removal Of Irritation Fibroma By 810-Nm Diode Laser

KEYWORDS

Irritation fibroma, diode laser, chronic irritation

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ABSTRACT Irritation fibroma is a localized fibrotic overgrowth which can usually be seen in oral cavities. It occurs mostly due to chronic trauma. In this case report, treatment of a 41 year old female patient with a chief complaint of local irritation occurring due to chronic trauma on buccal mucosa along the line of occlusion, by using diode laser is presented. Excision was performed by diode laser with a wavelength of 810 nm and a power of 2.0 Watt in a continuous mode. The advantages of diode laser are the absence of bleeding, no need for sutures, good postoperative patient comfort and early wound healing.

Introduction:

Irritation fibroma is usually seen due to chronic irritation on buccal mucosa. Interior of cheek, lateral sides of tongue and lower lip are tissues more prone to be traumatized. In clinical examination, irritation fibroma is characterized by no pain and pale pink in colour. Its consistency is soft. In wide lesions, ulcerated areas may also be observed. However, most of the fibromas have certain borders and are not malign tumors. The recurrence can only be seen if chronic trauma is not eliminated (1). In differential diagnosis, lipoma localized on lower lip and buccal mucosa, salivary gland tumors and pyogenic granuloma that can occur because of trauma are used (2). That's why, the localization of lesion and anamnesis of patient is of utmost importance for the correct diagnosis together with histological analysis.

Case Report:

A 41 year old female patient came in to our clinic with a chief complaint of firm formation inside her cheek. She was non smoker and had no past medical history. In her clinical intraoral examination, a large fibrotic tissue was observed on left buccal mucosa along the line of occlusion. It was pale pink in colour having firm consistency (Figure 1). According to her anamnesis, she was aware of that formation, had been biting her cheek for the last 3 years and keeping to postpone her dental visit.



Figure 1: Intraoral examination of fibrotic tissue.

Local anesthetic agent was applied around the lesion. Surgical excision was performed by diode laser with a wavelength of 810 nm and a power of 2.0 Watt in a continuous mode. No scalpel was used because of the possible bleeding tendency (Figure 2). There was no need for sutur-

ing and the operation area was left for secondary healing. The patient was instructed to rinse the area twice a day by 0,12% chlorhexidine mouth wash.



Figure 2: Removal of irritation fibroma by 810 nm diode laser.

The specimen was placed in 10% formalin buffer solution and sent for histopathological examination. A hyperplastic tissue was observed with dense collagen bundles which was diagnosed as irritation fibroma occurred due to chronic trauma. Patient was asked for a check-up visit one week later and the early healing of surgical wound was observed together with good postoperative patient comfort (Figure 3).



Figure 3: One week after surgery by diode laser.

The patient was also informed and motivated to stop biting inside of her cheek and she was given a custom made occlusal splint to help prevent chronic trauma.

Discussion:

Histologically, irritation fibroma is observed as irregular hyperplastic epithelium and superficial erosions which occur due to excessive collagen production. That's why, it is not considered as precancerous formation (2). Lesions that grow because of chronic irritation from lip and cheek biting mostly do not need to be treated as stress disorder is the main etiological factor (3). However, a medical consultation may also be called if the origin is psychological problems and/or depression. Patients are strongly advised to stop biting as it gets habitual after a while. On the other hand, if there is a specific reason for chronic irritation such as fractured teeth, malocclusion etc., the etiology must first be treated. After removing trauma, most likely the lesions disappear in a short period of time. When needed, surgical excision by scalpel or lasers is performed (4). In his clinical case, Walinski used 810 nm diode and Erbium YAG lasers to remove two different irritation fibromas located on the cheek of a patient (5).

In this case, we used 810 nm diode laser to remove the excessive tissue occurred due to chronic trauma. According to histological analyses, it was diagnosed as irritation fibroma. After the procedure, patient was motivated to stop biting and a custom made occlusal splint was also prepared.

In conclusion, irritation fibroma that occurs due to chronic trauma deriving from lip and/or cheek biting, can easily be treated by surgical excision with 810 nm diode laser and occlusal splint. The advantages of the use of diode laser are being literally conservative treatment approach as compared to conventional scalpel technique, no bleeding in the surgical wound, no need for suturing and good post-operative patient comfort.

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