



Case Report

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Management of an Oral Fibroma by Scalpel Excision in a Patient on Anticoagulant Therapy: A Case Report

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Abstract

A traumatic or irritational fibroma is the most prevalent submucosal reactive lesion in the oral cavity. It forms as a result of irritation or trauma and is composed of fibrous or connective tissue. Although electrical or laser surgery is beneficial for the excision of oral fibroma in patients taking anticoagulant, but these devices may not be available in all clinical settings. This case report aims to demonstrate scalpel excision as an effective and convenient surgical treatment for the management of the fibroma in patient having anticoagulant drug instead of using electrical, laser, or cryosurgery. A female patient, 70 years old, reported to the department with a chief complaint of painless swelling in the right lower posterior tooth region for the past 2 years. On examination, the lesion was found to be a well circumscribed, smooth, tender, firm, and lobulated pink swelling 1x0.8x0.5 cm in diameter positioned on the buccal mucosa of the right molar region. Surgical therapy was carried out by scalpel excision, followed by medication for the management. In compared to electrical, laser, and cryosurgery, scalpel excision was a simple and effective approach to successfully remove the fibroma, and complete healing of the surgical site was observed after 2 months.

Keywords: Anticoagulant, Fibroma, Hyperplastic lesion, Scalpel excision.

INTRODUCTION

The most common submucosal reactive lesion in the oral cavity is an irritational fibroma, which is composed of fibrous or connective tissue and is brought on by traumatic irritants like calculi, foreign objects, chronic biting, overhanging restoration margins, sharp bone spicules, and over extended borders of appliances [1,2]. Inflammatory fibrous hyperplasia, focal fibrous hyperplasia, traumatic fibroma, peripheral fibroma, fibrous nodule, and fibroepithelial polyp are some of the names for irritation fibromas, which can develop in all organs and are made of mesenchymal tissue [3]. The tongue, gingiva, and buccal mucosa are the most common soft-tissue sites where inflammatory hyperplastic lesions can develop at any age [1].

Traumatic or irritant fibroma is usually characterized by a slow, painless growth accumulated over a period of months or years. It is controversial whether oral anticoagulants should be stopped prior to surgery when oral fibroma is removed in individuals who are using them. The possibility of a life-threatening thromboembolic episode when the drug is stopped before to the surgery must be weighed against the likelihood of a major post-surgical hemorrhage if the drug is not stopped.

Electrical surgery, laser surgery, and scalpel excision are among the surgical treatments performed for soft tissue lesions [4]. The most beneficial techniques are electrical [4] and laser surgery, because less bleeding occurs at the surgical site [5]. However, these instruments are expensive and might not be accessible in all clinical settings. The purpose of this case report is to demonstrate how an oral fibroma was treated successfully in a patient undergoing anticoagulant drug using a feasible method other than electrical, laser, or cryosurgery: scalpel excision.

CASE REPORT

A 70-year-old female patient reported to the department of Oral and Maxillofacial Surgery, Pioneer Dental College & Hospital with the chief complaint of a large mass in her oral cavity that was interfering eating from 2 years ago and became larger gradually. The patient was diagnosed with Bell's palsy 13 years ago, and her prior medical history included hypertension.

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The patient also regularly takes an anticoagulant and antihypertensive. The anticoagulant had to be stopped four days before surgery and resumed one day after surgery. On intraoral examination, the patient was found to have a well circumscribed, smooth surface, tender and firm in consistency, and lobulated pink swelling as shown in Figure 1(A). The patient also displayed symptoms of caries and periodontal disease. Additionally, there were artificial restorations on the right mandibular and maxillary molar teeth. During the patient's extra-oral examination, no facial abnormalities, palpable lymph nodes, muscle soreness, were discovered. Chronic irritation brought on by biting was taken into consideration, leading to a diagnosis of traumatic fibroma.

The fibroma had to be surgically removed using the scalpel excision technique. Following informed consent, 2% lignocaine hydrochloride was applied to the surgical site topically, followed by local anesthetic infiltration. The usual anesthesia technique used for excision is a local infiltration around the lesion. Prior to surgery, the blood pressure was measured, and a gentle needle poke was used to assess the operative site's propensity for bleeding. Furthermore, the patients' international normalized ratio (INR) was evaluated on the day of surgery and found to be around 1.5. After anesthesia was found to be effective, excision of the fibroma was done with the scalpel blade Dearon® N°15 and suture with MEDISILK™ 3-0 synthetic non-absorbable suture. Tension needed to be placed on the mass during the procedure to allow for clean and uniform removal; this was done by threading a suture through it. At the beginning of the surgical procedure, a 3-0 suture was placed into the lesion to better visualize the base of the lesion shown in Figure 1(B).

Using a number 15 scalpel blade, the incision was applied to the base of the lesion, and the margin extended 2 mm into healthy tissues. The excision was done carefully to prevent damaging the parotid duct. The wound was sutured with a 3-0 suture. The excised fibroma measuring 1x0.8x0.5cm in its diameter shown in Figure 1(C), was sent for a histopathological analysis. To prevent postoperative infection and pain, postoperative instructions were given, and the antibiotic tablet cefuroxime (500 mg) twice daily for 5 days and the nonsteroidal anti-inflammatory drug diclofenac sodium three times daily for 3 days were prescribed. However, pain was present on the 1st postoperative day, which subsided with the continuation of medication. The postoperative period was uneventful with no delayed hemorrhage. The patient was recalled for re-evaluation after 10 days and 2 months, respectively. The suture was removed after 10 days, and there were little scars that healed completely after 2 months.

Histopathological report revealed a polypoid piece of tissue, lined by squamous epithelium. The subepithelial tissue shows proliferation of fibro-collagenous tissue. Furthermore, the underlying fibro cellular connective tissue stroma showed a mixed inflammatory cell infiltrate mainly composed of lymphocytes and plasma cells, dilated blood capillaries and island of blood capillary surrounded by numerous amounts of spindle shape fibroblast cells as shown in Figure 2. These features were suggestive of a traumatic or irritational inflammatory fibroma. No sign of malignancy was detected in histopathological analysis.



Figure 1: Steps of fibroma removal by scalpel excision. (A) Nodular shape fibroma on buccal mucosa of right maxillary region. (B) Scalpel incision around the base of fibroma. (C) Excised fibroma after scalpel excision.

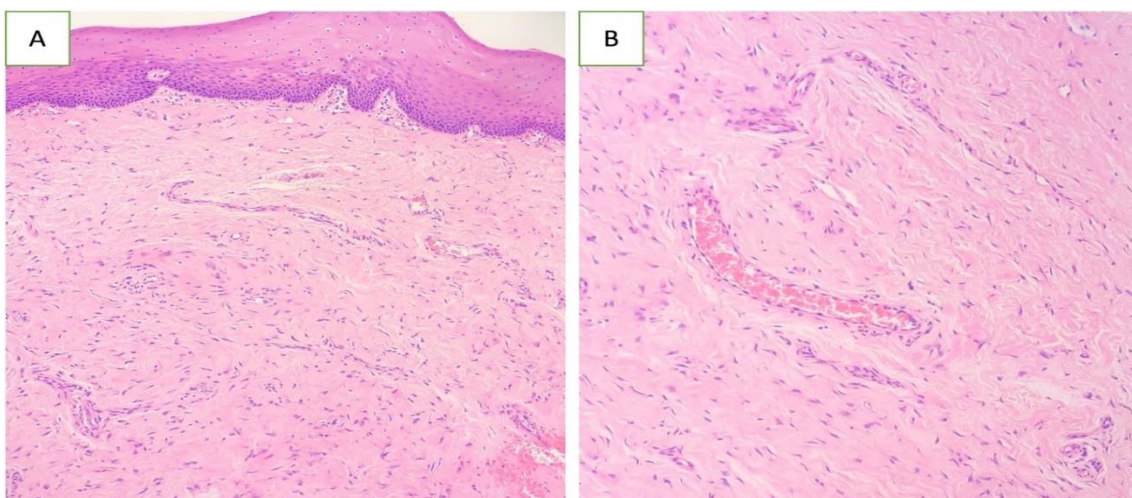


Figure 2: Histopathological evaluation of excised fibroma by Hematoxylin and Eosin (HE) stain. (A) Histological image showed polypoid piece of tissue, lined by squamous epithelium along with fibro-cellular connective tissue filled with mixed inflammatory cells mainly lymphocytes and plasma cells, (B) Histological image showed an island of blood capillary surrounded by numerous amounts of spindle shape fibroblast cells.

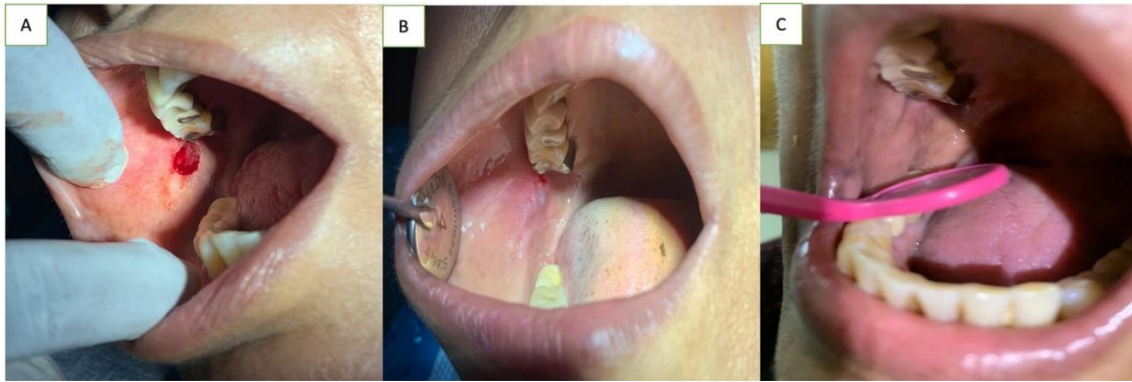


Figure 3: Status of surgical site healing after 10 days (B) and 2 months (C) scalpel excision. Note: Successful healing of surgical site mucosa with no sign of recurrence.

DISCUSSION

In the current study, excision of irritational fibroma by the scalpel excision method seems to be an effective and convenient for the management in patient undergoing anticoagulant drug therapy. Furthermore, complete removal of the fibroma and healing of the surgical site have been observed as shown in Figure 3. The etiology of a traumatic or irritational fibroma is usually a source of irritation or trauma. They exhibit a pattern of collagen arrangement depending on the site of the lesion and the amount of irritation. There are two types of patterns: radiating pattern and circular pattern [5]. To reduce the chance of recurrence, the therapy of fibroma includes removing etiological causes, scaling adjacent teeth. Furthermore, any apparent irritation should be eliminated, such as an ill-fitting dental prosthesis, and abrasive restoration. Long term postoperative follow up is extremely important because of the high growth potential of incompletely removed lesions.

Surgical excision is the preferred treatment for fibromas. The method should be modified to the specifics of each fibroma's characteristics and location. The body and the base of the entire lesion must be removed while planning the excision. Electrosurgery is another method that can be used to remove the fibrous hyperplastic areas since it has the benefit of simultaneous tissue excision and coagulation, which helps to reduce bleeding. However, for this type of surgery, specialized and expensive equipment required which might not be available in all clinical settings. Furthermore, cryosurgery, which employs liquid nitrogen and is highly effective when a patient is at high risk for surgery or allergic to anesthetics. However, a drawback of cryotherapy is that small samples cannot be used for histological analysis [7]. Traditional scalpel excision of the lesion were used to treat the presented case. This strategy was selected since it was simple to approach the lesion. The strangling technique consists of tying a surgical suture around the lesion with a knot, then exerting firm pressure so that the blood supply decreases the lesion to a pale color, and finally incising the base of the lesion by detaching it from nearby tissue with a N^o15 scalpel blade [3,8]. The excision was performed using a circular incision of 2 mm in diameter with a border of healthy tissues. A therapeutic strategy for the presented case was selected based on the clinical characteristics of the lesion and the available facts. In this case, the technique was determined to be efficient, and the surgical site has shown full healing.

CONCLUSION

The current case report demonstrated that scalpel excision technique was highly effective because it was a relatively simple, safe, and cost-effective method that resulted in complete healing of the surgical site. Furthermore, complete excision can be performed without the use of costly equipment such as electrocautery and laser surgery.

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Conflict of Interest

None declared.

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