



Management of Oral Fibroma by Scalpel Excision Followed by Electocoagulation - A Case Report

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Abstract

Traumatic fibroma lesions are characterised by painless, slow growing, firm, round or oval shaped lesion. It generally interferes with mastication. An oral fibroma is a benign scar lesion resulting from persistent long standing irritations caused due to cheek or lip biting, rubbing from a rough tooth, dentures or other dental prostheses. So, various treatment modalities has been introduced for excision of the lesion which includes cryosurgery, intralesional injections of corticosteroids, electrical, laser or scalpel excision. A 54 year male patient reported with chief complaint of large mass on his left lateral border of tongue from 6 months which was interfering with chewing. Patient had history of frequent tongue bite. Clinical examination revealed the presence of oval-round mass present on lateral border of tongue with a smooth surface and broad base. The excision of traumatic fibroma was performed using scalpel technique followed by coagulation performed with electrocautery unit. The diagnosis was confirmed by histopathological examination. This case report demonstrated scalpel excision of lesion followed by coagulation with electrosurgery unit and found to be a simple, safe, cost effective and highly efficient method with no recurrence.

Keywords: Traumatic Fibroma; Oral Fibroma

Introduction

An oral fibroma is a benign scar lesion reaction resulting from persistent long standing irritations such as cheek or lip biting, rubbing from a rough tooth, dentures or other dental prostheses. It is also known as a traumatic fibroma, oral polyp, focal intraoral fibrous hyperplasia or fibrous nodule. Traumatic fibromas are mostly asymptomatic, smooth surfaced, sessile or pedunculated masses associated with trauma during mastication and commonly found in females between 20-50 years. The recurrence rate is very low, but when it occurs, it may be due to the persistence of offending irritant [1].

Differential diagnoses included neurofibroma, lipoma, hemangioma, and pyogenic granuloma. These can be ruled out as pyogenic granulomas have a smooth, wet surface that bleeds easily due to its abundance of blood vessels, lipomas are produced by the proliferation of subcutaneous tissue, and hemangiomas are found deep within the skin and their colour is red because of the abnormal build-up of blood vessels under its surface [2]. Traumatic fibroma lesions are characterised by painless, slow growing, firm consistency,

appears as a round or oval, sessile, broad-based swelling which has a lighter colour than the surrounding tissue [3]. Various treatment modalities has been introduced for excision of the lesion which includes cryosurgery, intralesional injections of corticosteroids, electrical, laser, or scalpel excision. This case report demonstrated the excision of oral fibroma by scalpel excision [4].

Case Report

A 54 year male patient reported to the Department of Periodontics, Yashwantrao Chavan Dental College, Ahmednagar with chief complaint of large mass on his left lateral border of tongue from 6 months which was gradually increasing in size and interfering with mastication. Patient had no significant medical and dental history. Patient gave the history of frequent tongue bite between upper and lower third molar teeth during chewing.

Clinical examination

Clinical examination revealed the presence of oval-round mass present on lateral border of tongue with a smooth surface and broad base. The lesion was around 1cm in diameter and lighter in

colour than the surrounding tissues. On palpation the lesion was soft, no-tender and firm in consistency (Shown in Figure 1). On extra-oral examination there was no facial abnormalities discovered, lymph nodes were non-palpable, non-tender, no muscle soreness were detected. Based on clinical examination and chronic irritation due to biting the diagnosis of traumatic fibroma was made. The lesion was indicated for surgical excision.



Figure 1: Pre-operative View.

Phase I therapy was performed with thorough scaling and root planning followed by occlusal rehabilitation with maxillary and mandibular third molar teeth. 1 week later, the informed consent was obtained followed by local anaesthetic infiltration. Then for the excision of lesion no 15 scalpel blade was used and incision was placed at the base of lesion with margins extending 2mm into the healthy tissue. The careful excision was done to avoid trauma to the lingual artery. In order to avoid the post-operative bleeding and to achieve the hemostasis the coagulation was performed with electrocautery machine (Figure 3) followed by the placement of interrupted sutures with Vicryl 3-0 (Figure 4). To prevent post-operative pain and infection, the analgesics and antibiotics were prescribed for 5 days and post-operative instructions were given. Patient was recalled for follow-up.



Figure 2: Excision of lesion.

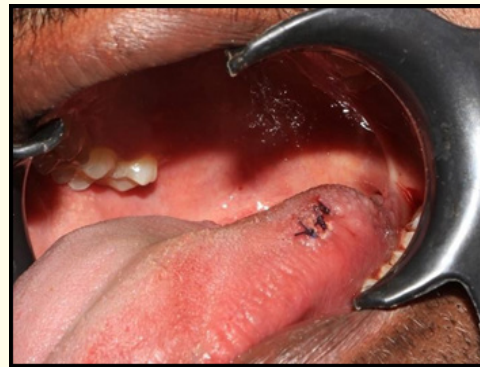


Figure 3: Sutures placed.



Figure 4: Electrosurgical Unit.

On seven days follow-up patient reported no pain or discomfort while chewing and no delayed haemorrhage (Figure 6). Post-operative examination revealed satisfactory healing with little scar formation which healed completely after 1 month (Figure 7).

Differential diagnosis

Differential Diagnosis included Pyogenic Granuloma, Hyperplastic Fibroma, Papilloma, and Granular cell tumours, Lipoma, Neurofibroma and Mucocele.

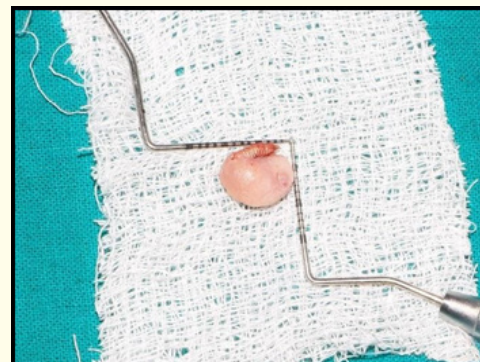


Figure 5: Traumatic Fibroma 10x10mm.



Figure 6: 1 week Post-operative.



Figure 7: 1 week Post-operative.

Histopathology

The excised fibroma measuring 10×10×5mm (Figure 5) was sent for histopathological examination. Gross examination revealed that the nodule was noncapsulated and the cut surface appeared whitish. H&E stained section showed tissue lined by hyperkeratotic acanthotic stratified squamous epithelium. Lining epithelium showed features of pseudoepitheliomatous hyperplasia. Deeper dermis showed collagen bundles & interspersed fibroblastic proliferation. Fibrous connective tissue with diffuse sparse mononuclear cells infiltration and congested blood vessels were noted. There is no evidence of tuberculosis or malignancy were detected in sections studied (Figure 8). These histopathological features confirm the diagnosis of traumatic or irritational fibroma.

Discussion

Traumatic or irritational fibroma of tongue is a common benign oral lesion resulting from persistent long standing irritations such as cheek or lip biting, rubbing from a rough tooth, dentures or other dental prostheses. Fibroma occurs due to chronic repair process resulting in formation of fibrous submucosal mass consists of granulation tissue and scar formation. Repetitive trauma

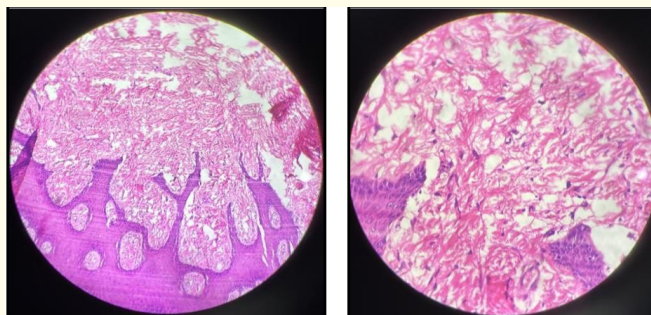


Figure 8: Histological Examination.

at the same site may result in recurrences of fibroma.⁵ They appear as an oval-round mass with broad base and lighter in colour than the surrounding tissue commonly found on lower labial mucosa, buccal mucosa and tongue. Differential diagnosis includes benign tumours such as granular cell tumours, lipoma, neurofibroma, pyogenic granuloma, hyperplastic fibroma, papilloma and mucocele which can be ruled out by clinical appearance and biopsy.

In the present case report, the lesion was identified based on clinical examination and diagnosis of traumatic fibroma was confirmed by the histological examination. Then, the excision of traumatic fibroma was performed using scalpel technique with margins extending 2mm into the healthy tissue. In order to prevent recurrence complete scaling was performed along with coronoplasty with upper and lower third molar teeth. On follow-up visit patient reported no pain or discomfort while chewing, no delayed haemorrhage and satisfactory healing with no post-operative infection. The results are consistent with the case report given by Diwan et al. (2023) in which surgical removal of an oral fibroma with a scalpel reported complete satisfactory healing with no recurrence.⁶ To prevent excessive bleeding after excision of lesion the coagulation mode electrocautery machine was used to coagulate the excised site followed by the placement of sutures. Bhatsange et al. (2016) reported the clinical use of electrosurgery units that coagulate vessels helps in faster wound healing with better patient compliance.

In present case report the therapeutic strategy used was selected as per the clinical characteristics of lesion and the best available evidences related to the traumatic fibroma. Here, the technique was found to be simple, safe, cost effective and highly efficient.

Conclusion

Based on histopathological examination which showed fibrous connective tissue and the clinical correlation the diagnosis of traumatic fibroma was confirmed. This case report demonstrated scal-

pel excision of lesion followed by coagulation with electrosurgery unit and found to be asimple, safe, cost effective and highly efficient method with no recurrence.

Bibliography

1. Panta P. "Traumatic fibroma". *The Pan African Medical Journal* 21 (2015): 220.
2. Perales-Garza RV, et al. "Management of traumatic fibroma in a patient with cerebral palsy using 810nm diode laser". *Journal of Clinical and Diagnostic Research* 11 (2017): 0-2.
3. Ramzi C., et al. "Robbins pathologic basis of disease". 6th ed. W.B. Saunders. (1999).
4. Diwan B., et al. "Conventional Scalpel and Diode Laser Approach for the Management of Traumatic Fibroma". *Cureus* 15.10 (2023): e47810.
5. Esmeili T., et al. "Common benign oral tissue masses". *Dental Clinics of North America* 49 (2005): 223-240.
6. Diwan B., et al. "Conventional Scalpel and Diode Laser Approach for the Management of Traumatic Fibroma". *Cureus* 15.10 (2023): e47810.
7. Bhatsange A., et al. "A clinical and histological comparison of mucosal incisions produced by scalpel, electrocautery, and diode laser: A pilot study". 10.2 (2016): 37.