



CASE STUDY

MULTIPLE IRRITATION FIBROMA

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ABSTRACT

Oral fibroma is a common benign scar-like reaction to persistent long-standing irritation in the mouth. It is also known as traumatic fibroma, focal fibrous hyperplasia, fibrous nodule or oral polyp. Oral fibroma presents as a firm smooth lump in the mouth. The surface may be ulcerated due to trauma, or become rough and scaly. This case report is a documentation of a 60 year old female. On examination 6 fibroma lesions were present in relation to lower right and left buccal mucosa and floor of the mouth. It was managed by surgical excision under general anaesthesia and was closed with local buccal advancement flaps. Histopathology report showed Multiple Irritation Fibroma. 1 year follow-up showed no recurrence.

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INTRODUCTION

Many types of localized reactive lesions may occur on gingiva, including focal fibrous hyperplasia, pyogenic granuloma, peripheral giant cell granuloma and peripheral cementifying fibroma (PCOF). (Farquhar *et al.*, 2008) Fibroma of the oral mucosa is the most common benign "tumor" of the oral cavity. (Neville *et al.*, 2002) It is a neoplasm derived from fibrous connective tissues. (Arya *et al.*, 2015) Majority of the fibromas occurring in the oral cavity are reactive in nature and represent a reactive hyperplasia of fibrous connective tissue in response to local irritation or trauma rather than being a true neoplasm. (Halim *et al.*, 2010) The traumatic irritants include calculi, overhanging margins, restorations, foreign bodies, chronic biting, margins of caries and sharp spicules of bones and overextended borders of appliances. Fibrous hyperplasia (traumatic or irritation fibroma) is the healed end product of the inflammatory hyperplastic lesion. (Wood and Goaz, 2006) Daley *et al.* suggested the term "focal fibrous hyperplasia" (FFH), which implies a reactive tissue response therefore preferable than the term "fibroma." (Daley *et al.*, 1990) It is also known as irritation fibroma (IF)/traumatic fibroma/FFH/ fibrous nodule/fibro-epithelial polyp. (Toida *et al.*, 2001) Amongst all these,

"Irritation Fibroma" (IF) is the most commonly used term. (Rangeeth *et al.*, 2010)

Case report

A 60 year old female patient reported to the Department of Oral & Maxillofacial Surgery at D.Y. Patil Dental College, Pune in December 2014 with a chief complaint of multiple swellings in lower right and left back region of jaw since 3-4 months. Swellings were of approximately 2 x 3 x 1.5 cm in size, which were whitish-pink in colour, non-tender, oval-shaped and pedunculated. They showed no signs of bleeding on probing. No other signs and symptoms of any syndromes were detected. Based on clinical and radiological examination, the lesions were diagnosed as irritation fibroma. (Figure 1, 2 and 3) The treatment for the same was planned as surgical excision of multiple fibroma along with extraction of mobile teeth under general anaesthesia.

Surgical Procedure

Valid written consents were taken from the patient. All necessary blood and radiologic investigations were done. The patient was taken under general anaesthesia. Naso-endotracheal intubation was done, followed by scrubbing, painting and draping. Local anaesthesia (2% Xylocaine hydrochloride with 1:200000 Adrenaline bitartarate) was

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administered at the incision sites. Surgical excision of all the fibromas was carried out using a combination of surgical blade and unipolar electrocautery. (Figure 4 and 5) All the mobile and grossly carious teeth were extracted. (Figure 6) Hemostasis was achieved. Closure was done using local buccal advancement flaps with 4-0 Vicryl sutures. (Figure 7) Patient was extubated uneventfully and discharged 3 days postoperatively. The post-operative histopathologic report indicated irritation fibroma. Patient was periodically recalled every 7 days for first 2 months and thereafter, check-ups once a month. The 1 year follow-up showed no signs of recurrence.



Figure 1. Pre-operative oral Fibromas



Figure 2. Pre-operative oral Fibromas

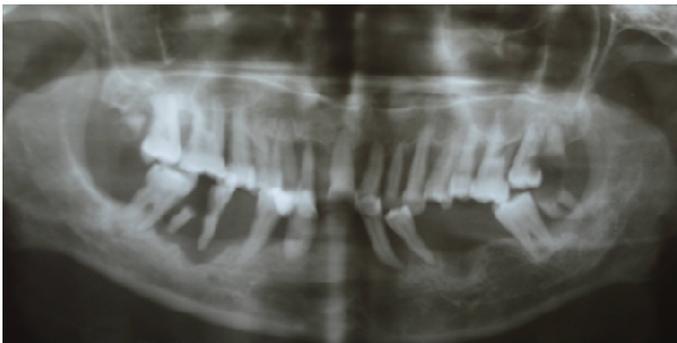


Figure 3. Pre-operative radiograph (OPG)



Figure 4. Surgical excision of Fibromas



Figure 5. Surgical excision of Fibromas



Figure 6. Extraction of mobile and grossly carious teeth



Figure 7. Closure using local Buccal advancement flaps with 4-0 Vicryl

DISCUSSION

Irritation Fibroma (IF) is a common sub-mucosal response to trauma from teeth or dental prostheses and was first reported in 1846 as fibrous polyp and polypus. (Alam *et al.*, 2010) It can develop from acute or repeated trauma (poor healing; exuberant scar tissue) or from pyogenic granuloma. (Yeatts and Burns, 1991) It is one of the most common soft tissue masses and the 3rd most common mucosal lesions in adults. Its prevalence is 12 lesions/1,000 adults. It's mostly seen between the 4th and 6th decades of life with no gender bias. (Sangwan *et al.*, 2015) The clinical features of IF are not unique and the differentiation of these lesions should be made from peripheral ossifying fibroma, pyogenic granuloma or peripheral giant cell granuloma. The IF and peripheral ossifying fibroma both appear pale, firm and non-tender. (Arya *et al.*, 2015) However, peripheral ossifying fibroma appears exclusively on gingiva, and they may be firmer to palpate because of calcified material in the stroma. (Coleman and Nelson, 1993) Lipoma can also be considered in the differential diagnosis but it is rarely seen in the oral cavity which has a pale yellow color soft and has slip feel on palpation. (Laller *et al.*, 2014) An interesting point to be noted is that the fibroma is a neoplasm of connective tissue origin and microscopically similar to inflammatory hyperplasia. Hyperplasia is a self-limiting process unlike neoplasia and hyperplastic cells sometimes show regression after removal of the stimulus. (Sangwan *et al.*, 2015) Histopathologically, IF exhibit two patterns of collagen arrangement depending on the amount of irritation and the site of the lesion; (a) Radiating pattern has been found to be associated with sites, which are immobile in nature (e.g. palate) and have a greater degree of trauma, (b) circular pattern is found to be associated with sites that are flexible in nature and have lesser degree of trauma (e.g. cheeks) whereas true fibroma does not show any of the patterns. They are capsulated as well sharp demarcation can be made from the surrounding normal tissue. (Patil *et al.*, 2014) IF does not hold a risk for malignancy. Recurrences are rare and are mostly caused by repetitive trauma at the same site. It can be treated by conservative surgical excision. (Yeatts and Burns, 1991) In our case, a combination of surgical blade and electrocautery was used for excision of multiple fibroma. The main reason for multiple fibroma could be attributed to trauma due to sharp teeth and presence of calculus. All the lesions were firm and separated from the base easily, without excessive hemorrhage. There was no exudate or pus, thus ruling out infection. Use of electrocautery helped in achieving hemostasis and permitted adequate contouring of the tissues. Other protocols have also been proposed like the use of electrocautery, Nd: YAG laser, flash lamp pulsed dye laser, cryosurgery, intralesional injection of ethanol or corticosteroids or sodium tetradecyl sulfate sclerotherapy. (Bede, 2013)

Conclusion

Irritation Fibroma present with a diagnostic dilemma due to similar clinical appearance of reactive soft tissue overgrowths.

They cause difficulty in eating and talking. Their occurrence may pose a hindrance for denture placement and may undergo secondary infection and ulcerate. They occur due to continuous irritation and soft tissue trauma. Hence it is important to eliminate the cause of irritation and trauma. They can be prevented by early education, interception of oral habits and regular dental check-ups. Surgical excision of the fibroma remains the treatment of choice.

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