Angiofibroma on Cheek Mucosa: A Rare Entity and its Management with Laser

Rajesh Kumar Thakur, Ellora Madan, Akhilesh Tomar, Manu Arora

Department of Periodontics, Kothiwal Dental College and Research Centre, Moradabad, Uttar Pradesh, India

Address for correspondence: Dr. Rajesh Kumar Thakur, Department of Periodontics, Kothiwal Dental College and Research Centre, Moradabad - 244 001, Uttar Pradesh, India. E-mail: dr.rkthakurperio@gmail.com

ABSTRACT

A rare presentation of an angiofibroma in the oral cavity is reported, which was treated with a diode laser. The benefits of laser treatment include bloodless procedure with instant precise coagulation of vessels. Although rare and unusual, it is suggested that angiofibroma should be included as one of the differential diagnoses of soft tissue swellings in the oral cavity.

KEYWORDS: Angiofibroma, buccal mucosa, diode laser

INTRODUCTION

Angiofibromas are highly vascular, histologically benign but locally aggressive tumours, predominant in the nasopharynx as reported in the literature. Extra nasopharyngeal localization of this tumour is rare. These tumours can appear as a result of infection, trauma, hormones and arterio-venous malformation.[1] Within the group of angiofibromas, the giant cell variant, lipomatous variant and the atypical variant with very close clinical features are the ones which can be differentially diagnosed.[2]

CASE REPORT AND MANAGEMENT

An 87-year old female patient reported to the Department of Periodontology with complaint of a "grape-like" swelling on the left cheek since 4 years which grew slowly to reach the present size without any pain creating discomfort while mastication. Intra-oral examination revealed a well-defined solitary, pedunculated, oval growth on left buccal mucosa measuring about 1.5 cm × 1 cm, with colour similar to adjacent mucosa [Figure 1]. On palpation, the growth was soft, non-tender, non-fluctuant and doughy in consistency. Based on the above findings, a provisional diagnosis of lipoma was made with a differential diagnosis of fibroma and angiofibroma.

Access this article online

Quick Response Code:

Website: www.jcasonline.com

DOI: 10.4103/0974-2077.150785

The growth was excised from the base of the peduncle [Figure 2] with the diode laser (FONA Laser, Germany) set on excision setting at 1.5 W power and continuous mode and sent for histopathological examination. The margins were merged with the surrounding tissues. A pectin dressing (Oraplast™) was applied. Analgesic, multivitamin and chlorhexidine mouth rinse were prescribed. There were no specific complaints 6 weeks postoperatively [Figure 3].

Histopathological examination

Histopathology revealed stratified squamous epithelium with flattening of rete ridges, fine and coarse collagen fibrils with an irregular, pattern. The vascular network was of varying calibre, irregular in shape, consisting of proliferating endothelial lining and few inflammatory cell infiltrates chiefly plasma cells [Figure 4]. It was reported as angiofibroma.

DISCUSSION

Angiofibromas are commonly well circumscribed tumours, localised in the superficial soft tissue and characterised by bland spindle-shaped cells arranged within vessels. Flucke *et al*. reported a link between cellular angiofibroma, spindle cell lipoma and mammary type myofibroblastoma showing a spectrum of one entity with morphological variations dependent on anatomic location.[3] The diagnosis

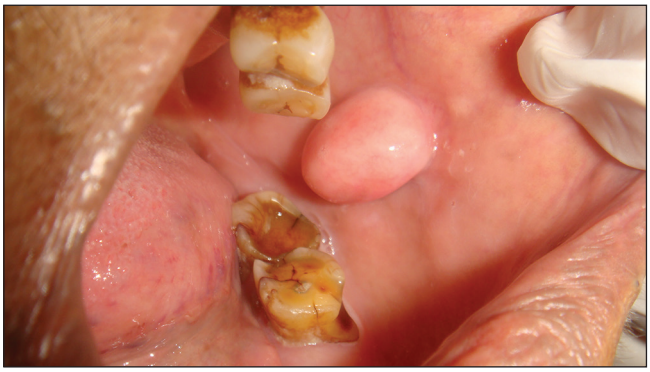

Figure 1: Clinical view of the swelling

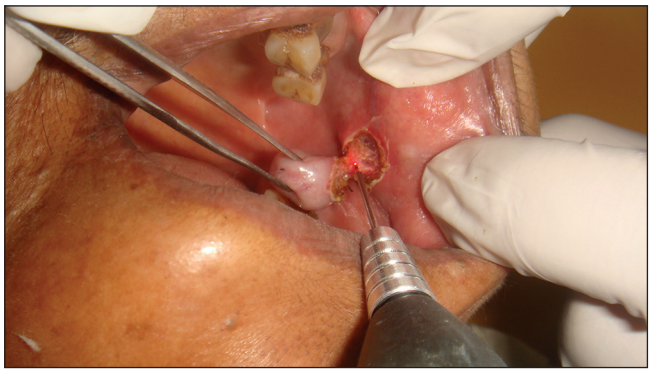

Figure 2: Per-operative -Excision of swelling by dental diode laser

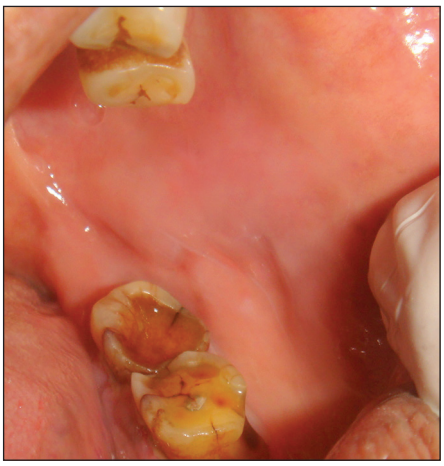

Figure 3: Post-operative view- after six weeks

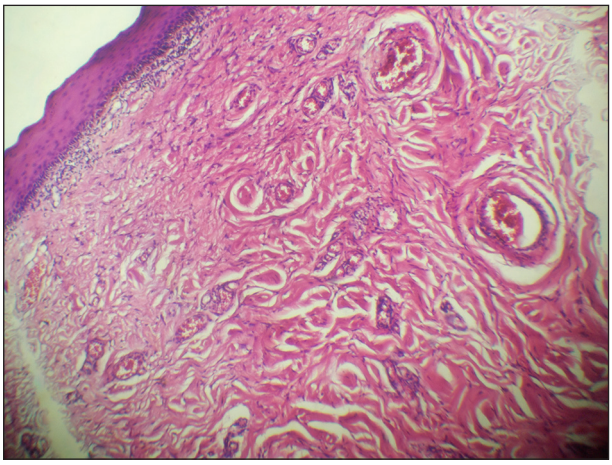

Figure 4: Histopathological microphotograph — showing stratified squamous epithelium and fibro-vascular connective tissue

of angiofibroma is dependent more on histological confirmation due to its close resemblance with other lesions, such as angiomyoma, haemangioma, lymphangioma and haemangiopericytoma. Even for an experienced pathologist accurate diagnosis of an angiofibroma is difficult when its location is an extremely rare one.[4]

We have used a dental diode laser for excision due to superior haemostasis and no sutures are required. There is minimal post operative oedema and scar formation.[5]

CONCLUSION

It is to emphasise that angiofibroma, although rare and unusual, should be included in the differential diagnosis of soft tissue swellings in the oral cavity and can be managed by surgical excision or laser.

REFERENCES

1. Hung K, Yan A, Kao S, Chang C. Angioleiomyoma in right lingual gingiva: A case report. Chin J Oral Maxillofac Surg 2005;16:179-87.
2. Guo G, Paulino AF. Lipomatous variant of nasopharyngeal angiofibroma: A case report. Arch Otolaryngol Head Neck Surg 2002; 128:448-50.
3. Flucke U, van Krieken JH, Mentzel T. Cellular angiofibroma: Analysis of 25 cases emphasizing its relationship to spindle cell lipoma and mammary-type myofibroblastoma. Mod Pathol 2011;24:82-9.
4. Iwasa Y, Fletcher CD. Cellular angiofibroma: Clinicopathologic and immunohistochemical analysis of 51 cases. Am J Surg Pathol 2004;28:1426-35.
5. Pick RM, Colvard MD. Current status of Lasers in soft tissue dental surgery. J Periodontol 1993;64:589-602.

How to cite this article: Thakur RK, Madan E, Tomar A, Arora M. Angiofibroma on cheek mucosa: A rare entity and its management with laser. J Cutan Aesthet Surg 2014;7:227-8.

Source of Support: Nil. **Conflict of Interest:** None declared.