



Intramuscular Hemangioma Involving Orbicularis Oris Muscle – Case Report

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Abstract

Hemangiomas that cause facial esthetic concern include those that occur mainly on maxillary lip. The lesion may be unilateral but may affect contralateral side due to high tissue elasticity, especially when involvement of the vestibule is present. Vascular proliferation in this region may occur between muscle fibers of orbicularis Oris muscle and may not be associated with any pain. This article presents a case of intramuscular hemangioma in a young male adult patient who had reported with carious involvement of mandibular molar. The swelling was associated with maxillary lip and had slowly grown in size over a period of three years. Definitive diagnosis was done after an incisional biopsy was evaluated for pathological evaluation. Patients normal masticatory and functions of speech were not impaired by the presence of the swelling. The patient received a crown in relation to the endodontic treated tooth, while after confirming the benign nature of the swelling, the patient did not turn up for surgical removal of the swelling.

Keywords: hemangioma, vascular malformations, fibroma, neurillemoma, benign, tumour.

Introduction

Among various organs of the body, the oral cavity is considered to be a very common site of many diseases/ conditions,¹ that includes both congenital and acquired disorders. The mere presence of either a physiological condition like severe bone resorption or extreme disfigurement due to removal of carcinoma involves facial aesthetics,² which in turn impairs the person's social response.³ While facial aesthetics are integral to dental aesthetics, there is no particular different definition of the two. Both are actually the subjective and objective

elements and principles that are integral to the beauty and attractiveness.⁴ Hemangiomas are considered to be benign vascular alterations which are chiefly branded by the proliferation of vascular channels (vessels) of either subcutaneous or submucous tissue.⁵⁻⁷ the growth of such tissue is usually seen clinically as rapid in nature. They can be either superficial or deep depending upon their location and anatomical relation of surrounding tissues.⁸ While superficial types are easily identified, the problem in diagnosis is mainly related to a hemangioma that occurs in deep

tissues.⁹ In rare cases, the proliferation of blood vessels may be observed to occur between skeletal muscle fibres which is then termed as intramuscular hemangioma (IMH).⁹

This article in the form of a clinical case report presents a case of intramuscular hemangioma which accounts for less than 1 % of all hemangiomas.

Case report

A 27 year old male patient was referred to the department of Prosthodontics for restoration of an endodontically treated mandibular first molar. The patient had reported to the department of oral medicine about three weeks back with chief complaint of pain in the same tooth. Patients medical history revealed that the swelling was asymptomatic and was first observed three years back. No other history of symptoms or allergies were reported by the patient. Extra oral examination showed bilateral swelling that was more towards the right side than the left side (Fig 1a). Bilateral asymmetry of the face and lips was also obvious on impaired facial esthetics. Intra oral examination revealed a normal mucous coated nodule, that was firm in consistency upon palpation (Fig 1b). The labial vestibule in the maxillary anterior region was obliterated and possessed limited mobility. Patients oral hygiene was considered to be average and had a few pit and fissure caries of the natural teeth. The patient had developed acute pulpitis in relation to mandibular molar due to deep caries. Clinical provisional diagnosis of the swelling in relation to maxillary lip included fibroma, adenoma (pleomorphic), neurilemmoma. Incisional biopsy of the swelling was done for definitive diagnosis, which revealed histopathological features like proliferation of vascular capillaries invading skeletal muscle tissue (Fig 1c), along with peripheral perivascular hyaline material in muscle tissue. Treatment options presented to the patient included surgical excision of the lesion which he refused.

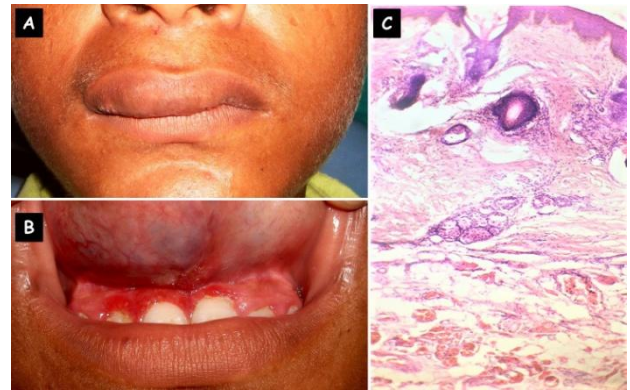


Figure 1: (A) Extra oral view of the patient showing increased lower third of the face due to swelling. Note the extent of the swelling across the midline (B) Intraoral view showing obliteration of the labial vestibule and surface coloration of the swelling (C) Histopathological features showing stratified squamous epithelium with hypertrophy, hyperplasia with keratosis below which thin walled capillary channels of different sizes are observed.

Discussion

A case of intramuscular hemangioma diagnosed histopathologically has been presented in this case report. Clinically the condition encompasses a differential diagnosis that may include a cyst, mucocele, keratoacanthoma, kaposi sarcoma, fibroma, salivary gland tumours and some infections like space infections.¹⁰⁻¹⁴ Clinical appearance of IMH is critical in determining the types of test and treatments. When superficial, it presents typical purplish color which disappears upon applying pressure (emptying of blood vessels). In such cases, a vitropressure maneuver results in pale coloration upon application of pressure.¹¹ Patient also reported that the swelling initially was small which grew to its present size over a period of more than three years. Facial aesthetics, however, have been grossly affected during the last 8 months since the swelling was more obvious to the naked eye from far off distance. Despite, facial esthetics impairment the patient had not sought medical treatment for the condition. It has been reported that most patients seek treatment, especially when esthetics or functions are impaired.¹⁵ Since the swelling was in anterior area, there were no

observed impairments of other functions like mastication and deglutition. Hard bony lesions in and around the oral cavity have been reported to impair masticatory functions.¹⁶ In the current case, a major part of the orbicularis Oris muscle was involved with right side upper fibres being most prominent. The absence of pain with the associated muscle is mainly attributed to the direction of the fibers of the muscles which encircle the tooth and run horizontally.¹⁷ Among the less common conditions that mimic the lesions are space infections (diffuse swelling) and swelling due to allergy (like drugs).¹⁸ When the lesions are small with definite boundary treatment options include Sclerotherapy (with monoethanolamine oleate) which is considered to be safe and effective.¹⁹ Surgical corrections and or removal of the lesion is also a viable alternative treatment option which can be done as immobilization, arterial ligation or simple exercise followed by plastic reconstruction of the removed portion.²⁰

Conclusion

Swellings of any origin when present on face, impair facial aesthetics. Most patients seek care when gross appearance is affected. Intramuscular hemangiomas associated with orbicularis muscle are painless swellings and should be diagnosed to differentiate from other benign and malignant tumors.

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Conflict of interest: None

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