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INCIDENTAL FINDING OF A RARE CASE OF INTRAMUSCULAR HAEMANGIOMA

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ABSTRACT
Intramuscular haemangiomas are rare benign congenital neoplasm of vascular origin. Less than 20% are found in head and neck region and they account for less than 1% of all haemangiomas. The most frequent site is masseter when it comes to head and neck. Their infrequency, deep location and unfamiliar presentation makes these lesions are incorrectly diagnosed clinically. The following case report is an incidental finding of intra-muscular haemangioma of buccinators.

KEYWORDS: intra muscular, hemangioma, laser.

INTRODUCTION

Hemangioma are benign proliferative vascular lesions characterized by increased endothelial cell turnover that usually appears after birth, grow rapidly, and then involute over the years. Within the wide spectrum of vascular lesions, intramuscular hemangioma are very rare, accounting for less than 1% of all hemangiomas. The masseter is the most frequently involved muscle, accounting for 5% of all intramuscular hemangiomas. The trapezius, periorbital, sternocleidomastoid, and temporalis muscle follow the masseter in frequency.[1] Very few cases of intramuscular hemangiomas of the buccinators has been reported.

CASE REPORT

A 20 year old female patient reported to the department of Oral Medicine and Radiology, with a chief complaint of pain in upper right back tooth region since two days. On examination there was a deep periodontal pocket with respect to upper right first premolar, second premolar and first molar which was the cause of pain. Following the normal protocol, examination of entire oral cavity was done to rule out any other pathology.

A non-tender, soft, sessile, non-ulcerated, purplish dome shaped swelling, with well-defined border was found extending from lower right first molar to third molar, and from 2 cm above the lower left buccal vestibule till the lower border of vestibule, approximating 3 cm x 2 cm as shown in figure 1.

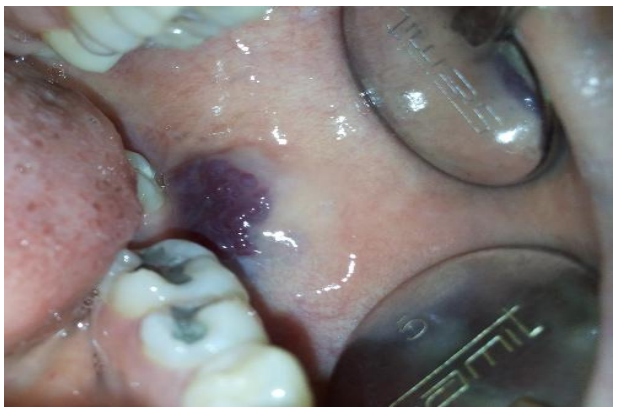

Figure 1: intra-oral picture of hemangioma

Patient was aware of the pathology but since that was not causing any problem and so was not her chief complain and she did not seek treatment for it. The lesion was present since ten years and was slowly increasing in size. There was no history of trauma and bleeding. The swelling blanched on pressure. A provisional diagnosis of haemangioma was considered.

Apart from treating the patients chief complain, patient was educated regarding the existing lesion and its

possible complications, after which she agreed to its treatment. Fine needle aspiration cytology of the lesion was done and haemorrhagic fluid was aspirated. Patient was planned and prepared for excisional biopsy using Laser.

After routine blood investigations, the lesion was excised using Laser under local anesthesia, suturing was done, and the excised mass was sent for biopsy.

Hematoxylin and eosin stained section showed well-formed capillary sized vessels present surrounding the muscle bundles and entrapped within the muscle bundles, suggestive of intramuscular haemangioma, as shown in figure 2.

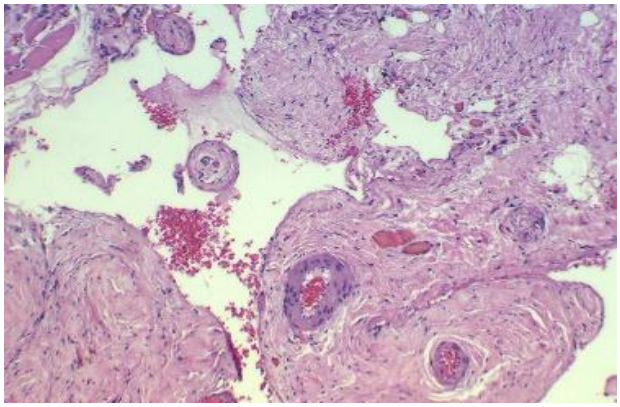

Figure 2: histopathological picture of the intra-muscular haemangioma

Considering the location of the lesion and the histopathology findings, it was concluded to be a case of intramuscular haemangioma of the buccinator.

Patient was kept on follow-up every 15 days and the lesion completely healed by 3 months, as shown in figure 3.

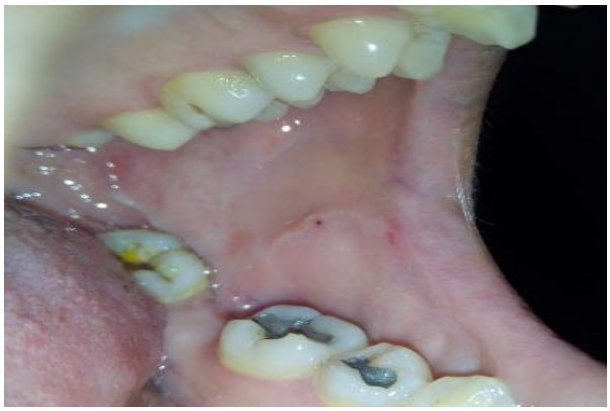

Figure 3: intra-oral picture of the patient 3 months after follow up

REVIEW OF LITERATURE WITH DISCUSSION:

Haemangiomas are rare benign vascular neoplasms and are abnormal proliferations of blood vessels,[2] and they may occur in any vascularized tissue. Skin and subcutaneous tissues are the most encountered sites. They are hamartomas rather than true neoplasms. They are generally composed of vascular spaces arising from endothelial cells and not by incorporation of nearby vascular channels. 85% are found in new born infants and 1 year old.[3] They regress with age and thus are not commonly seen in adults. Less than 1% occurs in the head and neck region and surgical intervention carries the best prognosis.

Intramuscular haemangioma does not regress spontaneously. They are generally seen in second and third decade of life. Their unfamiliar presentation makes magnetic resonance imaging, ultrasonography and angiography essential for accurate diagnosis.[4,5] Exact cause of intramuscular haemangioma is still a topic of debate.

Intramuscular haemangiomas account for less than 1% of all haemangiomas and less than 20% are found in head and neck region. Involvement of masseter occurs in 5% of all intramuscular haemangiomas. It may also involve trapezius, sternocleidomastoid, and temporalis.

The first case of intramuscular haemangioma was reported by Listen in 1843, subsequently other reports give a total of 457, of these 63 involved head and neck (13.8%), and 23 (5%) involved masseter muscle.[6,7] Several theories have been proposed, but the most likely explanation is that the intramuscular haemangioma is a congenital mass, arising by abnormal embryonic sequestrations, similar to congenital arteriovenous malformations.[7]

Intramuscular haemangiomas are non-metastasizing benign congenital tumors. After remaining unrecognized for long periods, they may suddenly start to grow in second or third decade of life.[8] They are usually asymptomatic until a growth spurt occurs at which time pain occurs in about 50% of cases.

Histopathologically, hemangiomas have been classified into capillary and cavernous types. Now recently, Allen and Enzinger examined 89 intramuscular haemangiomas and found that they can be divided according to the size of the vessels predominantly into small-vessels or capillary type, which comprised vessels of less than 140µ diameter, large-vessel or cavernous type, which comprised vessels of more than 140µ diameter and mixed type, which consists of both small and large vessels.[2,6] About 30% of small-vessel intramuscular haemangioma are found in the head and neck and tend to have short clinical history compared to 19% of large-vessel and 5% of mixed types.[2] The mixed type shows greater tendency for local recurrence (28%) and the large vessel type, the least (9%). To date no reasons have been given for the recurrence rate of mixed type.[6]

Management ranges from steroids to injection of sclerosing agents, radiation therapy, and surgical

excision. Preoperative embolization of hemangiomas with muscle fragments as a technique to decrease intraoperative blood loss have been reported recently. Total excision with a surrounding cuff of normal muscle is the accepted optimal treatment of intramuscular haemangioma. Certain factors must be considered before selecting the surgical approach like relatively poor exposure for adequate tumor removal and risks injury to the facial nerve.[7] Recurrences occur in approximately 18% of intramuscular haemangioma, usually as a result of incomplete surgical resection. Regional and distant metastasis has not been reported yet.

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