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Case Report

Hemangioma of the Buccal Mucosa: A Case Report and Review of the Literature

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Abstract: Haemangioma are common tumors characterize microscopically by proliferation of blood vessels, it is classified histologically into capillary and cavernous haemangioma, it is considered one of the most common soft tissue tumor of the head and neck but it is relatively rare in the oral cavity and uncommonly encountered by clinician. This paper describes 57 year old male patient who complaint of a single painless swelling of the posterior part of the buccal mucosa for 10 years duration, the lesion had irregular but smooth surface, it was treated by surgical excision and the lesion diagnosed histopathologically as haemangioma, haemangioma in the buccal mucosa of the oral cavity is relatively rare, early detection, biopsy and management will prevent potential complications, the lesion should be excised carefully to prevent intraoperative or postoperative bleeding, although prognosis is excellent it does not tend to recurrent or undergo malignant transformation, recalling and follow up is recommended to detect signs of recurrence.
Keywords: Haemangioma**,** buccal mucosa**,** cavernous haemangioma, excision, malignant transformation, recurrence

INTRODUCTION

Hemangiomas are developmental vascular abnormalities characterized by a proliferative growth phase and by very slow inevitable regression (involutive phase) [1]. Although a few cases are congenital, most develop in childhood [2]. Occasionally, older individuals are affected [2, 3].

The congenital hemangioma is often present at birth and may become more apparent throughout life [2]. There is a higher incidence in females (65%) than males (35%) [4]. Althought hemangioma is considered one of the most common soft tissue tumors of the head and neck [2], it is relatively rare in the oral cavity and uncommonly encountered by the clinicians. The word "hemangioma" has been widely used in the medical and dental literature with reference to a variety of different vascular anomalies which has traditionally led to a significant amount of confusion regarding the nomenclature of these lesions [5, 6]. In 1982, Mulliken and Glowacki described a classification scheme which is presently accepted. These vasoformative tumors are classified under 2 broad headings of hemangioma and vascular malformation. Hemangioma is further sub classified based on their histological appearance as: (1) capillary lesions; (2) cavernous lesions; and (3) mixed lesions [5]. A sclerosing variety also occurs that tends to undergo spontaneous fibrosis [7]. Clinically hemangiomas are characterized as a soft mass, smooth or lobulated, sessile or pedunculated and may be seen in any size from a few millimeters to several centimeters [8]. The color of the lesion ranges from pink to red purple and tumor blanches on the application of pressure, and hemorrhage may occur either spontaneously or after minor trauma. They are generally painless. Clinical diagnosis was based on histopathological evaluation [9]; this paper describes 57 year old male patient with painless swelling on the posterior buccal mucosa which diagnosed histologically as haemangioma.

CASE REPORT

57 year old male patient reported to the department of Oral Medicine; this research was approved by the Committee of Ethics at Research of the University of Sulaimani. the patient complaint of a single oval painless swelling on the posterior area of buccal mucosa for about 10 years duration. The color of the lesion was blue to brownish. The lesion was punched out, non fluctuant, sessile with irregular but smooth surface, about 1 cm in diameter, sometimes associated with bleeding; the patient had no history of systemic diseases, the lesion was excised surgically, differential diagnosis of the lesion was hemangioma, and lymphangioma**.** The lesion was sent for

histopathological examination. Histologically the diagnosis was hemangioma.

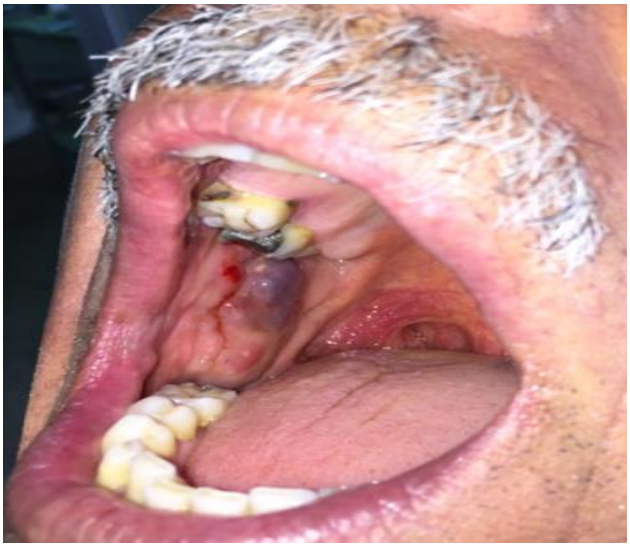

Fig-1: 57 year old male patient with haemangioma on the posterior buccal mucosa

DISCUSSION

Vascular anomalies comprise of a widely heterogeneous group of tumors and malformations [10]. Hemangiomas are common tumors characterized microscopically by proliferation of blood vessels [11] Although hemangioma is considered one of the most common soft tissue tumors of the head and neck, it is relatively rare in the oral cavity and uncommonly encountered by the clinicians [12] affecting as many as 12% whites, but it rarely occurs in dark-skinned individuals [13]. Hemangiomas may be cutaneous, involving skin, lips, and deeper structures; mucosal, involving the lining of the oral cavity; intramuscular involving masticatory and perioral muscles; or intraosseous involving mandible and/or maxilla [14]. Hemangiomas are also classified on the basis of their histological appearance. Capillary and cavernous hemangiomas are defined according to the size of vascular spaces [2, 8]. Capillary hemangioma are composed of small thin walled vessels of capillary size that are lined by a single layer of flattened or plump endothelial cells and surrounded by a discontinuous layer of pericytes and reticular fibres [8]. To our knowledge, it was first described in the literature by Sznajder *et al*. [15], in 1973 under the term "Hemorrhagic hemangioma". Cavernous hemangiomas consist of deep, irregular, dermal blood-filled channels [2]. They are composed of tangles of thin-walled cavernous vessels or sinusoids that are separated by a scanty connective tissue stroma [8]. Mixed hemangiomas contain both components and may be more common than the pure cavernous lesions [8]. Hemangiomas are considered as benign tumors, being characterized by 3 stages: Endothelial cell proliferation, rapid growth and at last spontaneous involution. The pathophysiology of hemangiomas is attributed to genetic and cellular factors, mainly to monocytes, which are considered the potential ancestors of hemangioma endothelial cells. Imbalance in the angiogenesis, which causes an uncontrolled proliferation of vascular elements, associated with substances such as vascular endothelial growth factor (VEGF), basic fibroblast growth factor (BFGF) and indoleamine 2,3dioxygenase (IDO), which are found in large amount during proliferative stages, are believed to be the cause [16]. The hemangioma appears as soft mass, smooth or lobulated, and sessile or pedunculated and may vary in size from a few millimeters to several centimeters [17]. They are usually deep red and may blanch on the application of pressure and if large in size, it might interfere with mastication [18]. The superficial hemangiomas are often lobulated, and blanch under finger pressure and the deeper lesions tend to be dome-shaped with normal or blue surface coloration, and they seldom blanch [9]. In this case haemangioma had smooth surface, sessile, about 1cm, single and painless. Periodontally these lesions often appear to arise from the interdental papilla and spread laterally to involve adjacent teeth which is usually painless.[13] confusion with other conditions can occur since haemangiomas may mimic other lesions clinically, radiographically and at times histologically [13]. Vascular anomalies of head and neck historically have confused clinicians which have resulted in difficult study, improper diagnosis and inappropriate treatment [13] The differential diagnosis of haemangiomas includes pyogenic granuloma, peripheral giant cell granuloma, peripheral ossifying fibroma, chronic inflammatory gingival hyperplasia (epulis), epulis granulomatosa, and squamous cell carcinoma [19]. In this case differential diagnosis was established based on clinical features as haemangioma and lymphangioma. The classification of haemangiomas is based on histological appearance, therefore histopathological assessment remains the most accurate and satisfactory means of diagnosis [13].

Regarding treatment, most true hemangiomas require no intervention; they undergo spontaneous regression at an early age. Only 10-20% requires treatment because of their size, location or their behavior [20]. Although different therapeutic procedures including microembolization, radiation, cryotherapy, sclerosing agents, corticosteroids and, recently, laser therapy have been reported, complete surgical excision of these lesions, if possible, offers the best chance of cure. In this case the lesion was treated by surgical excision. The prognosis of hemangioma, in general, is excellent since it does not tend to recur or undergo malignant transformation following adequate treatment [21].

CONCLUSION

Haemangioma in the buccal mucosa of the oral cavity is relatively rare, early detection, biopsy and management will prevent potential complications, the lesion should be excised carefully to prevent intraoperative or postoperative bleeding, although prognosis is excellent it does not tend to recurrent or undergo malignant transformation, recalling and follow up is recommended to detect signs of recurrence

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