Capillary Haemangioma of Palatal Gingiva - a case report

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Abstract

Vascular anomalies comprise a widely heterogeneous group of tumors and malformations. Haemangioma is the most common benign tumor of vascular origin of the head and neck region. However, it is not a common pathologic entity in the oral cavity. The possible sites of occurrence in oral cavity are lips, tongue, buccal mucosa and palate. It is probably developmental rather than neoplastic in origin. Despite its benign origin and behaviour, it is always of clinical importance to the dental profession and requires appropriate management. This case report presents a rare case of capillary haemangioma on the palatal gingiva in a 14-year old female.

Introduction

Haemangiomas are the most common benign vasoformative tumors of infancy and childhood. They usually manifest within the first month of life, exhibit a rapid proliferative phase followed by a slow, progressive involution[1]. Most lesions appear to be developmental anomalies or hamartomas. Some result from abnormal vessel proliferation after trauma and a few appear to be true benign neoplasms[2].

Based on a series of 1308 blood vessel tumors, Watson and Mc Carthy classified haemangiomas into various categories which include capillary, cavernous and angioblastic types[3].

Clinically, they appear as small / large, flat / elevated, bright red to purple, soft, lobulated lesions, varying in size from few mm upto even 6 cm in diameter. Bleeding is typical with minimal trauma. Colour change on pressure is a common finding with return to the original colour on withdrawal of pressure.

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Case Report

A female patient aged 14 years, reported to the Department of Periodontics, Institute of Dental Studies and Technologies, Modinagar with the chief complaint of a swelling on the inner side of her upper front teeth since 4-5 months. She also complained of localized bleeding in that area on brushing. However, there was no pain but slight discomfort on eating. Past history revealed that she had a similar swelling 9 months back, which she got excised. However, the growth recurred within 2 months after surgical excision. It was initially small in size, gradually increased and stabilized after 3-4 weeks uptil the present size.

General Examination

The patient was normally built for her age with no defect in gait or stature. There was no relevant medical history.

Intraoral Examination

On intra-oral examination, there was a localized gingival growth between maxillary right central incisor and lateral incisor (11, 12) on the palatal aspect. The lesion arised from the interdental papillary region and was pedunculated with a distinct slender stalk. The lesion was bright-red, erythematous and bilobulated with well-defined margins. The two distinct lobes measured about 5 cm × 4 cm and 3 cm × 2.5 cm in diameter. They were firm and rubbery in texture. No surface ulceration or secondary infection was noted. The oral hygiene of the patient was reasonably good.

Investigations

A complete hemogram, urine analysis and an intraoral periapical radio graph with respect to maxillary right central and lateral incisor (11, 12) were done. The laboratory investigations for blood and urine were within normal limits.

Radiographically, there was no evidence of crestal bone loss and lamina dura was intact around the roots of both maxillary right central and lateral incisors, however, slight rarefaction of bony trabeculae was noted.

Management

Thorough scaling and root planing was carried out and the patient was put on maintenance phase. After 1 week, surgical excision of the lesion was done under local anaesthesia as a part of excisional biopsy. A thread was tied around the stalk of the pedunculated lesion and was stretched tightly so as to reduce the blood circulation to the lesion. The growth was then surgically excised along with the stalk and thorough curettage of the area was performed. The excised lesion was transported in 10% formalin to the laboratory for histopathological examination. Periodontal dressing was applied on the operated area and the patient was given post-operative instructions. After 1 week, the dressing was removed.

Histopathology Report

Histopathological examination revealed stratified squamous epithelium which showed hypertrophy, hyperplasia with keratosis. Beneath this, many small and large capillaries filled with blood were present. These vessels were lined by a single layer of endothelial cells and were supported by a connective tissue stroma of varying density.

Diagnosis

On the basis of history, clinical examination and histopathological report, a diagnosis of capillary haemangioma was made.

Discussion

Gingiva is often the site of localized growths that include a diverse group of reactive and neoplastic conditions. One of the conditions amongst these is haemangioma. Most cases are not present at birth and usually manifest within the first month of life. Watson and Mc carthy (1940) in their classic study, reported that 85% of the 1308 lesions had developed by the end of first year of life. However, they may arise in young adults or older individuals.

Haemangiomas usually but not invariably follow a benign course. Although the exact cause is unknown, some authorities believe that this lesion is not a true neoplasm, but rather a developmental anomaly or hamartoma[4]. It has also been hypothesized that localized trauma stimulates the release of angiogenic factors to induce haemangiomatous growth.

They are about 3 times more common in females than in males (Hidamo, 1972). This may be related to the common finding of high levels of estrogen receptors in the proliferating lesions[5]. In the case presented here, the exact causative factor could not be identified; the hormonal changes during puberty and the inflammatory stimuli might have activated an underlying vascular malformation.

Microscopically, capillary haemangioma is comprised of numerous intertwined capillary sized vessels lined by endothelial cells and usually filled with blood.

Regarding treatment, most true haemangiomas require no intervention, they undergo spontaneous regression at an early age, only 10-20% require treatment because of their size, location or their behaviour (Mulliken 1995)[6]. Although different therapeutic procedures including microembolization, radiation, cryotheraphy, 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 the present case, the treatment comprised of complete surgical excision of the lesion, care being taken to remove the entire base of the lesion followed by thorough curettage and root planing to remove the local factors from the area.

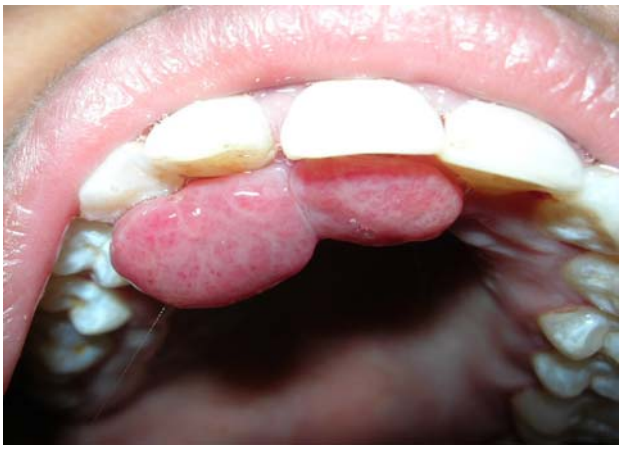
The prognosis of haemangioma, in general, is excellent since it does not tend to recur or undergo malignant transformation following adequate treatment.

In the case presented here, the patient was recalled at regular intervals and no sign of recurrence was reported till 1 year follow up.

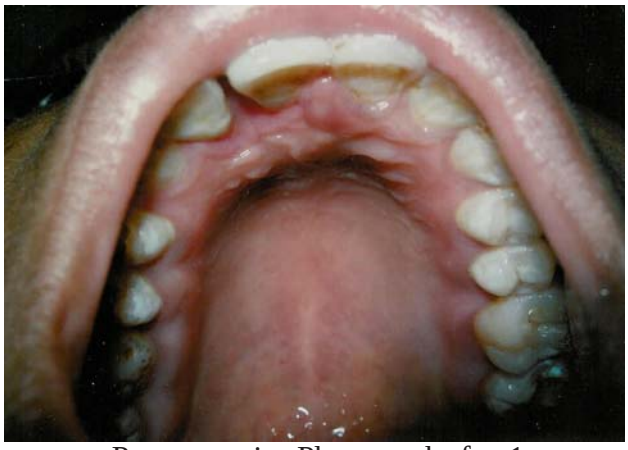
References

1. Mulliken JB, Glowacki J. Haemangiomas and vascular malformations in infants and children: a classification based on endothelial characteristics. Plast Reconstr Surg 1982 March; 69(3): 412-22.

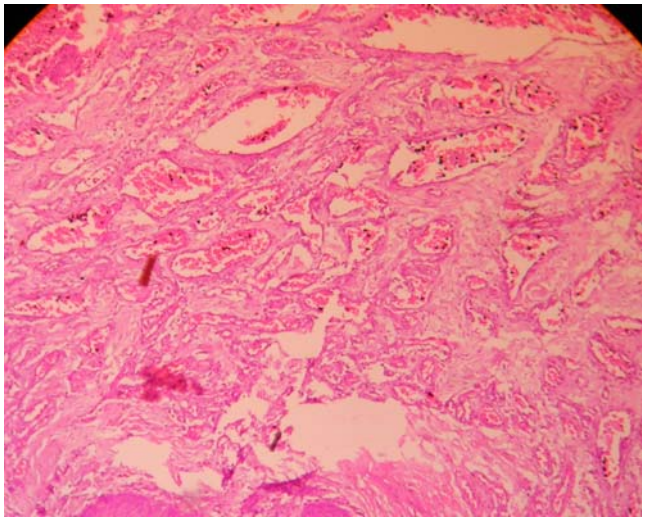
2. Toeg A, Kermish M, Grishkan A, Temkin D. Haemangiomas of the oral cavity: A report of two cases. J Oral Maxillofac Surg 1993 ; 51: 812-14.
3. Watson WL and Mc Carthy WD. Blood and lymph vessel tumors: A report of 1056 cases. Surg Gynecol Obstet 1940 ; 71:569
4. Shafer WG, Hine MK, Levy BM. Benign and malignant tumors of the oral cavity. A textbook of oral pathology (4th Ed.)2002: 186-229
5. Michels MS. Haemangiomas, Vascular malformations and Nevi. 2002 (Nov.)
6. Mulliken JB, Boon LM, Takahashi K et al. Pharmacologic therapy for endangering haemangiomas. Curr Opin Dermatol 1995;109-113.



Pre-operative Photograph



Post-operative Photograph after 1 year



Histological Picture showing
numerous blood filled capillaries