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Lobulated Capillary Hemangioma: A Case Report

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ABSTRACT

Enlargements of soft tissue of the oral mucosa are common but can be diagnostically challenging because of their diverse etiopathogenesis and similar clinical presentation. Lobulated capillary hemangioma of oral mucosa is a well-known benign lesion occurring most commonly on gingiva. Their clinical presentation may be a variation of normal anatomic structures, inflammation, cysts, developmental anomalies, and neoplasm. Some of these lesions are reactive in nature. This article focuses on a case of lobulated capillary hemangioma occurring on gingiva in mandibular posterior region.

INTRODUCTION

Exophytic gingival growths are one of the most commonly seen lesions of the oral cavity. Lobulated capillary hemangioma, commonly known aspyogenic granuloma, isconsidered to be an exaggerated, conditioned response to minor traumaor a persistent irritation resulting in a benign vascular tumor-like growth. The term pyogenic granuloma, introduced by Hartzell in 1904, is a misnomer as nor the lesion is associated with pus, neither it is granuloma histologically. Differential diagnosis of pyogenic granuloma includes peripheral giant cell granuloma, peripheral ossifying fibroma, metastatic cancer, haemangioma, angiosarcoma and non-Hodgkin's lymphoma. Hemangiomas are benign tumors consisting of blood vessels and are classified as capillary, mixed or cavernous hemangiomas, based on their histology.About 75% of cases occur on gingiva, other sites being tongue, buccal mucosa, and lips.[1-5]Pyogenic granuloma are of two types, Lobular Capillary Haemangioma (LCH) and non-LCH type, which differ histologically and clinically,(varma) as reported by Epivatianos et al.[6]While LCH PG occurred more frequently (66%) as a sessile lesion, non-LCH PG occurred mostly as pedunculated (77%). Present case report shows the presentation and treatment of a pedunculated lobulated capillary hemangioma in mandibular posterior region.[6]

CASE REPORT

A 7-year-old female patient presented in the department of Periodontics, PGIDS, Rohtak with a swelling in lower right posterior region since past 3 months. The swelling had been gradually increasing in size.Patient complained of difficulty in mastication and bleeding from the site while chewing and brushing. History revealed occurrence of similar lesion 1 year back which was surgically excised. While patient's medical history was noncontributory, clinical examination revealed a pedunculated lesion, reddish in color, firm in consistency and approximately 1.5×1 cm in size present in relation to lower right first permanent molar (fig 1).

Fig 1 Preoperative picture

The swelling was non-tender and bled profusely upon probing. Moderate deposits of plaque were present in relation to the site of growth. Clinically, provisional diagnosis of pyogenic granuloma was made.Routine blood investigations were advised which were within normal limits.Intraoral periapical radiograph revealed minor loss of bone interdentally between first permanent molar and deciduous first molar on the affected site. (Fig 2) No other significant finding was observed.

Fig 2 Intra oral peri apical radiograph

TREATMENT

After phase 1 therapy, excisional biopsy of the lesion was planned.The lesion was excised under local anesthesia and thorough curettage of the site was also done. Periodontal pack was then placed over the surgical wound.(Fig 3)

Fig 3 Post operative picture showing periodontal pack in place

Postsurgical instructions were given to the patient. The excised growth was sent for histopathological examination. The histopathological investigation showed hyperplastic stratified squamous parakeratinisedepithelium with ulcerated areas. The connective tissue was fibrovascular comprising of numerous proliferating small and large endothelium-lined blood vessels engorged with red blood cells. Mild chronic inflammatory cell infiltration with areas of extravasated RBCs was also seen. There was no evidence of malignancy. (Fig 4)

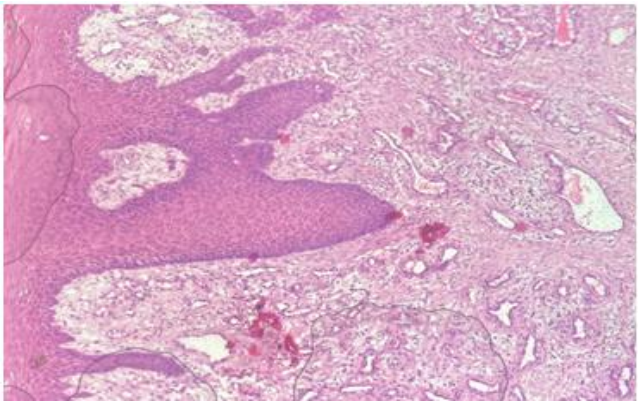

Fig 4 Histopathological picture

Based on histopathological report, diagnosis of lobulated capillary hemangioma was made.

At 1 week follow-up, satisfactory uneventful healing of the surgical site was observed. Oral hygiene instructions were reinforced.(Fig 5)

Fig 5 One week follow up

Further, at 3 months follow up, no signs of recurrence were observed.

DISCUSSION

About 7% of total benign lesion tumors of infancy and childhood are hemangiomas.[4]Being common in head and neck region,these occurless frequently in oral cavity, especially on the soft tissues.[7]Shamim et al. found that non-neoplastic lesions accounted for 75.5% of cases with lobulated capillary hemangioma being most frequent lesion, accounting for 52.71% cases.[8]Lobulated capillary hemangioma has been regarded as an "infectious" entity. Staphylococci and botryomycosis, foreign bodies, and localization of infection in walls of blood vessel as contributing factors for the development of the lesion have been reported by Kerr.[9]Shafer et al. stated that lobulated capillary hemangioma arising as a result of some minor trauma to the tissues provide a pathway for the invasion of nonspecifictypes of microorganisms.[1]Regezi et al. suggest that lobulated capillary hemangioma represents an exuberant connective tissue proliferation to a known stimulus or injury like calculus or foreign material within the gingival crevice.[10]History of trauma can be an extra gingival causewhereas chronic oral irritation from overhanging restoration, poor oral hygiene, and even hormonal changes can be gingival causes for its occurrence.[11]Immunosuppressive drugs such as cyclosporine, wrong selection of healing cap for implants can also lead to its precipitation.[12] Recurrence after treatment is common with rates ranging from 3.7% to 43.5%.[13]

CONCLUSION

Lobulated capillary hemangiomas are commonly encountered soft-tissue enlargements. Careful diagnosis is imperative to ensure proper treatment. Meticulous oral hygiene should be enforced. Surgical excision of the growth, along with curettage can be done to prevent its recurrences.

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