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Case Report

PYOGENIC GRANULOMA MASQUERADING AS CAPILLARY HEMANGIOMA: A CASE REPORT

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ABSTRACT:

Abstract

Pyogenic granuloma is a reactive connective tissue disorder. It is a misnomer and presents with two variants: lobular capillary hemangioma and non lobular capillary hemangioma. It has a predilection for females and young adults. It can be excised either surgically or with the help of a laser. It may bleed profusely while manipulation or post excision. In this case report, a thirty five year old male patient experiences swelling on the lower lip that was surgically excised and was found to be a lobular capillary hemagioma on histopathology.

KEYWORDS: Lobular capillary hemangioma, pyogenic granuloma, capillary hemangioma

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INTRODUCTION

Pyogenic granuloma (PG) is a reactive benign lesion of the mucosa. The name Pyogenic granuloma is a misnomer as there is neither pus formation nor a granulomatous reaction in the lesion. The most common predisposing factors for this lesion are trauma and local irritation.[1] It frequently occurs in the second and third decades of life and has a predilection for females. Pyogenic granuloma was considered as "hemangiomatous granuloma" by Angelopoulos, that justifies the histopathological characteristics for both inflammatory component and hemangioma.[1] Lobular Capillary Hemangioma (LCH) and non-LCH are considered two subtypes of PG and Ver Berne et al. drew the clinical, pathological, and histopathological differences between PG and LCH.[2]

The Lobular Capillary Hemangioma is known to arise as a result of a vascular malformation, occuring spontaneously whereas Pyogenic granuloma occurs due to the hormonal changes that occur as a result of pregnancy or puberty. PG has chaotically arranged densely packed capillaries, while LCH has uniformly arranged organized lobules of capillaries.[3] The treatment option for pyogenic granuloma is total excision, surgically or laser excision.

CASE REPORT

A thirty five year old male patient reported to the department of Oral Medicine and Radiology with a chief complaint of swelling on right side of lower lip since 2 months. The patient reported trauma on the lower lip 3 months back by accidental lip bite which developed into a swelling. The swelling caused difficulty in eating and chewing, and was asymptomatic. Extraorally, there was gross facial symmetry with incompetent lips. (FIG 1a and 1b) On intraoral examination, there was a solitary, well defined dome shaped swelling evident over lower labial mucosa of size 1x1.5cm adjacent to 43 and 44 region and slightly reddish-pink in color. (FIG. 2a, 2b, 2c and 2) On palpation, it was soft, non-tender,

fluctuant, non-pedunculated with normal temperature and not fixed to the underlying tissues. There was no blanching seen while diascopy was performed. Based on the history of trauma and clinical examination the provisional diagnosis made was a Mucocele of lower labial mucosa. Differential diagnosis included pyogenic granuloma, oral hemangioma and soft irritational fibroma. Surgical excision of the lesion was done and the specimen was sent for histopathological investigation. (Fig.3) The report showed hyperplastic parakeratinized stratified squamous epithelium with marked acanthosis. Subepithelial tissue presented with dilated congested capillaries surrounded by stroma with spindle cells and occasional mast cells. (Fig.4) Based on histomorphology of the specimen, it was concluded as Lobular Capillary Hemangioma of lip (pyogenic granuloma). The patient was put on a follow up and it did not recur even after a year. (Fig.5)

FIG. 1a and 1b

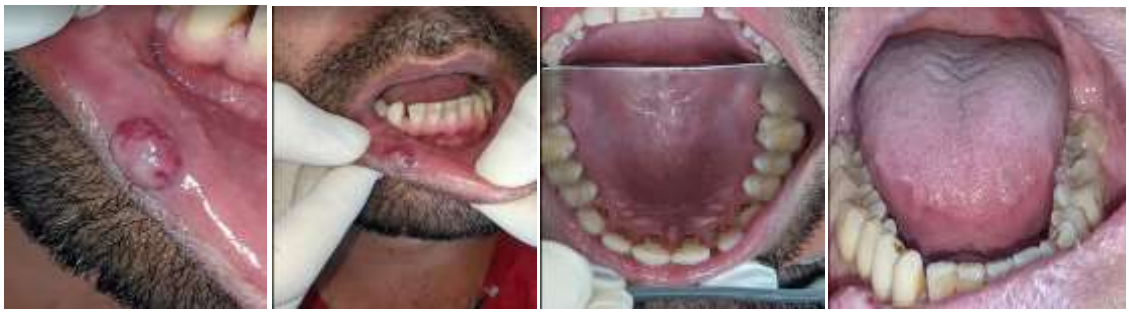

FIG. 2a, 2b, 2c and 2d

Fig. 3

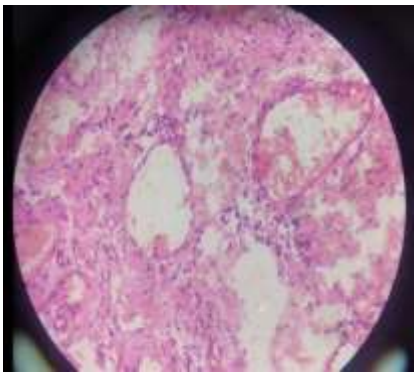

Fig. 4

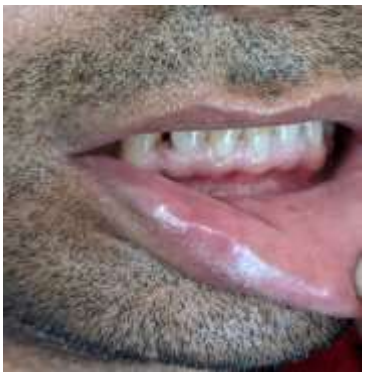

Fig. 5

DISCUSSION

Hemangiomas are developmental anomalies whereas a vascular malformation may present itself at birth.[4,5] The hall mark of vascular malformations is proportionate growth throughout the life of the individual and are localized or diffuse errors of embryonic development.[6] These are classified as capillary, lymphatic, venous, arterial or a combination of these based on histological appearance, therefore histopathological assessment remains the most accurate means of diagnosis.[4]

Pyogenic granuloma ("Lobular Capillary Hemangioma") is a proliferative vascular lesion often clinically confused with hemangioma, as both share the histological characteristics. A pyogenic granuloma appears suddenly with a history of trauma to the area. Intraorally, It presents on the lips, labial mucosa, tongue, gingiva and rarely on hard palate.[6] The pyogenic granuloma usually has a pedunculated shape with a tiny stalk. The pathologist often designates the lesion a "capillary hemangioma, granuloma type" or "lobular capillary hemangioma." It may be difficult to make a light microscopic differentiation between a true hemangioma of infancy and a pyogenic granuloma. However, pyogenic granuloma exhibits

immunocytochemical and ultrastructural differences. It is predominantly perithelial, rather than an endothelial tumor.[5]

The treatment of choice for Pyogenic Granuloma is the surgical excision. Post-surgical scar formation can be prevented by cryosurgery and laser excision. In our case, simple surgical excision was performed. While treating such lesions, maintenance of good oral hygiene should be advised. Generally, such benign vascular lesions do not undergo malignant transformation, but there is a possibility of recurrence occasionally after surgical excision, commonly on gingiva. Therefore, regular follow-up is advised after the surgery.

CONCLUSION

Although oral pyogenic granuloma is not an uncommon entity, it may have an unusual presentation, causing a diagnostic dilemma to an oral physician. It is a benign vascular neoplasm resulting from a hyperactive tissue repair response. Thorough knowledge of the similar lesions is important to avoid any complications during the surgery.

CONFLICT OF INTEREST

None declared.

REFERENCES:

1. Kamal R, Dahiya P, Puri A: Oral pyogenic granuloma: various concepts of etiopathogenesis . J Oral Maxillofac Pathol. 2012, 16:79-82. 10.4103/0973-029X.92978
2. Ver Berne J, Raubenheimer EJ, Jacobs R, Politis C: Clinical and pathological differences between the PG and lobular capillary hemangioma in the oral cavity: a scoping review. J Stomatol. 2020, 73:206-16. 10.5114/jos.2020.98315
3. Srinivedha C, Simre D, Basnet A, et al. (July 19, 2023) Lobular Capillary Hemangioma Masquerading as Pyogenic Granuloma of Anterior Mandible: A Case Report. Cureus 15(7): e42157. DOI 10.7759/cureus.42157
4. Acikgoz A, Sakallioglu U, Ozdamar S, Uysal A. Rare benign tumours of oral cavity – capillary haemangioma of palatal mucosa: A case report. Int J Paed Dent. 2000;10:161–5.
5. Mulliken JB. Cutaneous Vascular Anomalies. In: Mccarthy JG, editor. Plastic Surgery: Tumors of Head and Neck and Skin. Vol. 5. Philadelphia: B Saunders Company Ltd; 1990. pp. 3194–230. [Google Scholar]
6. Rachappa MM, Triveni MN. Capillary hemangioma or pyogenic granuloma: A diagnostic dilemma. Contemp Clin Dent. 2010 Apr;1(2):119-22. doi: 10.4103/0976-237X.68593. PMID: 22114397; PMCID: PMC3220083.