SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://www.saspublishers.com

OPEN ACCESS

Maxillo-facial Surgery & Stomotology

Giant Infiltrating Angiolipoma of the Buccal Space: Case Report

Dr. Zeine El Abidine Baba El Hassene[1*], Dr. El Haddad Mounya[1], Pr. Dani Bouchra[1], Pr. Boulaadas Malik[1]

[1]Maxillo-facial Surgery and Stomotology Departement, University Hospital of Ibn Sina – Rabat – Morocco

DOI: https://doi.org/10.36347/sasjs.2025.v11i10.006 | **Received:** 27.07.2025 | **Accepted:** 01.10.2025 | **Published:** 06.10.2025

***Corresponding author:** Dr. Zeine El Abidine Baba El Hassene
Maxillo-facial Surgery and Stomotology Departement, University Hospital of Ibn Sina – Rabat – Morocco

Abstract **Case Report**

Angiolipoma is a histological variant of lipoma arising from adipose tissue. It most frequently affects the trunk and limbs but rarely occurs in the maxillofacial region. Two forms are recognized: non-infiltrating and infiltrating. These tumours are characterized by rich vascularization and a mixture of mature adipocytes. Although uncommon in the head and neck, infiltrating angiolipomas should be included in the differential diagnosis of lesions in this region because they can invade surrounding tissues, cause muscle pain and nerve deficits, and recur after incomplete excision. We describe a giant gingival angiolipoma located in the buccal space of a 12-year-old girl and discuss its clinical presentation, imaging findings, histopathology and management.

Keywords: Angiolipoma; Infiltrating; Buccal space; Neoplasm; Tumour; Case report.

1 INTRODUCTION

Lipomas are the most prevalent benign tumours of mesenchymal origin and are encapsulated by a thin fibrous capsule. In the oral cavity they account for only 1–4 % of benign soft-tissue tumours. The buccal mucosa and vestibule are the most common intra-oral sites affected. These lesions occur equally in males and females and typically present in the fifth and sixth decades of life. Although often asymptomatic, enlarging lesions can interfere with speech and chewing. Definitive diagnosis requires histopathological examination to distinguish lipomas from other lesions.

Angiolipoma is a variant of lipoma that contains proliferating blood vessels intermixed with mature fat cells. Two types are recognized: a non-infiltrating form that is encapsulated and an infiltrating form that lacks a capsule and can invade adjacent structures. Angiolipomas are rare in the head and neck region and extremely uncommon in the oral cavity; only a handful of cases have been reported in the literature. Here we report an unusual case of giant infiltrating angiolipoma of the gingiva and buccal space in a child.

2 CASE REPORT

A 12-year-old girl presented to the oral and maxillofacial surgery clinic with painless swelling on the right side of her face that had been growing for four years. The swelling developed spontaneously and had enlarged more rapidly over the preceding eight months following removal of a gingival growth adjacent to tooth 43. She denied paresthesia, suppuration or systemic symptoms. Her medical history was unremarkable except for poor oral hygiene.

2.1 Clinical examination

Extra-oral examination revealed a well-defined, firm and mobile swelling of the right cheek measuring roughly 7 × 4 cm. The overlying skin showed port-wine stain–like macules. The swelling was neither fluctuant nor compressible (Figure 1). Facial nerve function was intact. Intra-oral examination disclosed dental malposition and poor hygiene with two gingival masses on the upper and lower right alveolar ridges. These lesions were covered by crusted blood, bled on contact and were located from teeth 41 to 45 in the lower arch and 13 to 17 in the upper arch. (Figure 2)

Figure 1 : Clinical photograph of the patient's face showing a well-defined swelling of the right cheek

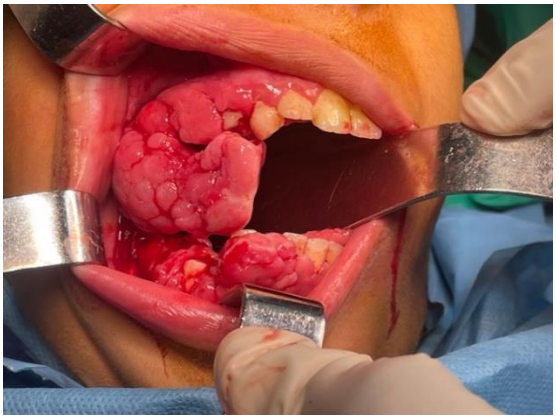

Figure 2: Clinical appearance of the Tumor

2.2 IMAGING

Contrast-enhanced computed tomography (CT) demonstrated a well-circumscribed, oval gingival mass on the upper right gingiva measuring 20 × 42 × 32 mm. The lesion showed heterogeneous enhancement and infiltrated the risorius and buccinator muscles, abutted the lower dental arch and tongue and contained areas of vascular flow voids (Figure 3). No lymphadenopathy was detected.

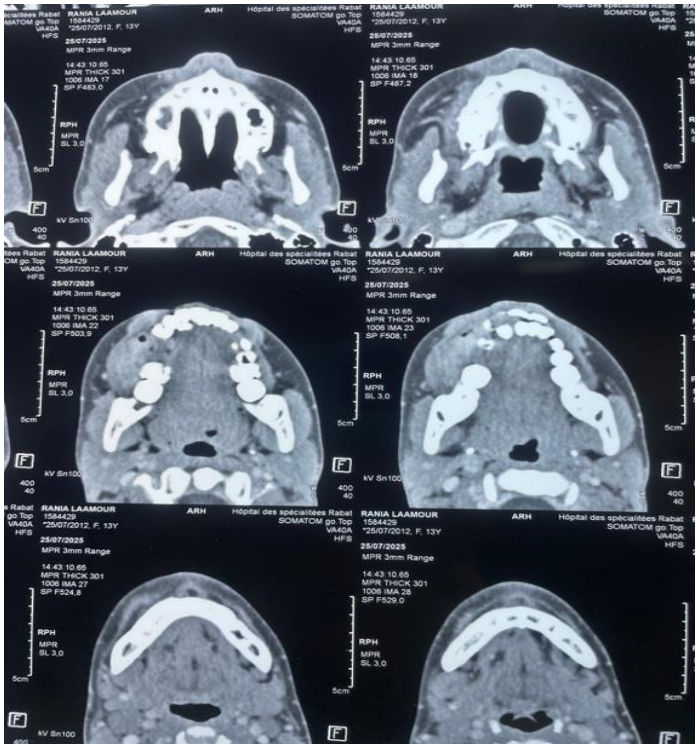

Figure 3: **Contrast-enhanced CT of the upper right gingival mass demonstrating a well-circumscribed lesion with heterogeneous enhancement and areas of vascular flow voids**

2.3 Histopathology

An incisional biopsy was performed under local anaesthesia. Microscopy showed an ulcerated lesion composed of mature adipocytes interspersed with proliferating small and medium-sized blood vessels containing fibrin thrombi and numerous mast cells, without significant atypia or necrosis. These features were consistent with angiolipoma.

2.4 Treatment and outcome

Complete surgical excision of the mass, together with the two gingival lesions, was performed via an intra-oral approach under general anaesthesia. The specimen measured approximately 3.5 × 3.5 cm, was irregularly shaped and pink to dark red in colour (Figure 4). The postoperative course was uneventful, and the patient healed without complications. At three-month follow-up there was no evidence of recurrence.

Figure 4: Post-operative view (left), Appearance of the surgically excised gingival mass. The mass was 3.5 × 3.5 cm, irregularly shaped with a pink to deep red color (Right)

3 DISCUSSIONS

Angiolipomas constitute 6–17 % of all lipomas and were first described as a distinct entity by Howard and Helwig in 1960. Gonzalez-Crussi and colleagues later distinguished infiltrating and non-infiltrating subtypes; the former lack a capsule and are more likely to recur after incomplete excision. Oral angiolipomas are exceedingly rare; most arise in the buccal mucosa or floor of the mouth. Review of published cases indicates a predilection for young adults with a slight male predominance.

The pathogenesis of angiolipoma remains unclear. Proposed mechanisms include hormonal influence, trauma and congenital lipoma undergoing vascular proliferation. Some authors suggest that angiolipoma originates from multipotential cells that differentiate into lipocytes at puberty, with subsequent vascular infiltration triggered by unknown stimuli. Most tumours show a normal karyotype, suggesting a reactive rather than neoplastic process. In the present case, chronic gingival irritation and poor oral hygiene may have contributed to development of the lesion.

Differential diagnosis of an intra-oral vascular fatty lesion includes hemangioma, conventional lipoma with prominent vascularity, lymphangioma, Kaposi's sarcoma and angiomyolipoma. Radiological investigations such as CT and magnetic resonance imaging help define the extent of the lesion but cannot reliably distinguish among these entities; definitive diagnosis requires histopathology. The characteristic features of angiolipoma include a well-demarcated, sometimes poorly encapsulated, tumour composed of mature adipocytes (>50 % of the mass) with prominent angiomatous proliferation and fibrinous microthrombi.

Complete surgical excision with clear margins is the treatment of choice for both infiltrating and non-infiltrating angiolipomas. Recurrence is uncommon after complete removal but has been reported for infiltrating lesions. In our patient, complete excision resulted in a favourable outcome with no recurrence at three months. Longer follow-up is warranted.

4 CONCLUSION

Angiolipoma of the oral cavity is a rare benign tumour that should be considered in the differential diagnosis of gingival and buccal lesions. Thorough clinical and radiological assessment followed by histopathological confirmation is essential for accurate diagnosis. Early complete surgical excision prevents recurrence and minimizes functional deficits. Reporting such unusual cases expands our understanding of this rare pathology and guides management.

REFERENCES

- Sanat Kumar Bhuyan, Ruchi Bhuyan, Priyanka Debta, Fakir Mohan Debta. *Non-infiltrating angiolipoma of floor of mouth – A rare case report and literature review*.
- Chitrawati B. Gargade, Abhay Y. Desai.
- Adeyi A. Adoga, Tonga L. Nimkur, Agabus N. Manasseh, Godwin O. Echejoh.
- Howard WR, Helwig EB. *Angiolipoma*. *Arch Dermatol*. 1960; 2013:924–931.

- Gonzalez-Crussi F, Enneking WF, Arean VM. *Infiltrating angiolipoma*. *J Bone Joint Surg Am*. 1966; 48:1111–1119.
- Park JY, Yoon YH, Rha KS, Koo BS. *A case of angiolipoma of the floor of the mouth*. *Korean J Otolaryngol Head Neck Surg*. 2008;51(4) :399–401.
- Lin JJ, Lin F. *Two entities in angiolipoma: a study of 459 cases of lipoma with review of literature on infiltrating angiolipoma*. *Cancer*.
- Ida-Yonemochi H, Swelam W, Saito C, Saku T. *Angiolipoma of the buccal mucosa: a possible role of mast cell-derived VEGF in its enhanced vascularity*. *J Oral Pathol Med*.
- Sah K, Kadam A, Sunita JD, Chandra S. *Non-infiltrating angiolipoma of the upper lip: A rare entity*. *J Oral Maxillofac Pathol*. 2012;16(1):103–106.
- Silva-Junior GO, Picciani BL, Costa RC, Barbosa SM, Silvares MG. *Oral soft-tissue angiolipoma – report of two cases and review of the literature*. *J Oral Sci*. 2013;55(1):85–88.