

# Buccal lipoma in an elderly male: Insights into diagnostic challenges and surgical management of a tumor

Mohammed Alqarny

Otolaryngology Head and Neck Surgery, Department of Surgery, College of Medicine, University of Bisha, Saudi Arabia

ABSTRACT

Lipomas are benign tumors consisting of mature adipocytes, with a low incidence in the buccal region, accounting for approximately 1% of head and neck lipomas. This case study discusses a 65-year-old male patient with a medical history of type II diabetes and hypertension, who presented with a painless, progressively enlarging mass in the left buccal area, persisting for one year. Clinical examination revealed a firm, mobile, non-tender mass measuring approximately 4 cm x 5 cm, with no signs of facial nerve involvement. Preoperative MRI confirmed the presence of a lipomatous mass. The surgical excision was performed under local anesthesia, utilizing adrenaline to enhance hemostasis. Due to the proximity of the mass to the buccal branch of the facial nerve, meticulous surgical technique was employed. Histopathological analysis validated the diagnosis of lipoma. The patient experienced an uneventful recovery, with no complications or recurrence noted at the one-year follow-up. This case underscores the significance of imaging studies, thorough surgical planning, and precision in technique when managing buccal lipomas in elderly patients.

**Keywords:** acute, lymphoblastic, leukemia, malignancy, childhood

## INTRODUCTION

Lipomas are typically painless and benign. They originate from the mesenchymal connective tissues and can occur in any part of the human body [1]. Lipomas comprise mature adipocytes and commonly occur in spaces containing fat, such as retroperitoneal or subcutaneous spaces [2]. Their incidence in the buccal region can be as low as 1% of all head and neck lipomas [3]. Lipomas normally present as slowly growing, painless, and solitary lesions occurring between the 4<sup>th</sup> and 6<sup>th</sup> decades of life [4]. The etiology is poorly understood but some risk factors include trauma, endocrine disorders, metabolic syndrome, and genetic disorders [4, 5].

Lipomas can either present as a painless mass or can cause local pressure symptoms such as paresthesia, difficulty in speech and mastication [6]. Surgical excision is the mainstay of treatment with only a 1%-2% chance of recurrence [7].

Here we present a unique case of buccal lipoma in an elderly patient with a special focus on imaging and surgical considerations.

## CASE PRESENTATION

### Patient information

A 65-year-old male patient presented to our outpatient surgical clinic with complaints of a progressively enlarging mass on the left side of his face (Figure 1). The patient only started noticing the mass a year ago. The past medical history of the patient was significant for type II diabetes and hypertension, both of which were well-controlled with medication.

### Clinical presentation

The patient denied pain, dysphagia, odynophagia, breathing difficulties, or paraesthesia. The patient also did not report any history of trauma, infection, or surgeries in the affected area.

### Physical examination:

A comprehensive examination of the ear, nose, throat, neck, and local lymph nodes was performed, which was unremarkable. A fibro-optic examination of the nasopharynx, oropharynx, and hypopharynx was unremarkable with normal vocal cords.

A bimanual palpation of the left buccal region revealed a non-tender, mobile, and firm mass approximately 4 cm x 5 cm in size. There was no skin or mucosal ulceration and the mass was not fixed to the overlying skin or mucosa. There was no evidence of

### Address for correspondence:

Mohammed Alqarny

Otolaryngology Head and Neck Surgery, Department of Surgery, College of Medicine, University of Bisha, Saudi Arabia

E-mail: maalgarni@ub.edu.sa

**Word count:** 1687 **Tables:** 00 **Figures:** 03 **References:** 11

**Received:** 16 November, 2024, Manuscript No. OAR-24-152651

**Editor assigned:** 19 November, 2024, Pre-QC No. OAR-24-152651 (PQ)

**Reviewed:** 05 December, 2024, QC No. OAR-24-152651 (Q)

**Revised:** 12 December, 2024, Manuscript No. OAR-24-152651 (R)

**Published:** 19 December, 2024, Invoice No. J-152651

facial nerve involvement.

## Imaging studies

A Magnetic Resonance Imaging (MRI) scan was performed to assess the mass and its relation to the surrounding facial structures. The MRI scan showed a well-circumscribed, homogenous mass

with high signal intensity on T1 and T2 weighted images and no contrast enhancement. The MRI did not show any invasion of the surrounding structures. These imaging features helped differentiate buccal lipoma from other soft tissue lesions in the buccal region



Fig. 1. Swelling over the left facial region

## Surgical procedure

Given the clinical presentation, examination findings, and MRI results, a diagnosis of buccal lipoma was made. The patient was scheduled to undergo a surgical excision under local anaesthesia. Given the age and medical history of diabetes and hypertension, a decision was made to inject 1:10000 adrenaline mixed with saline into the surgical site to reduce the risk of bleeding and to optimize dissection.

An external incision approximately 1.5 cm in length was made over the mass. A meticulous dissection of the mass was performed

which was well-encapsulated and isolated from the surrounding tissues. The mass was not invading but was found close to the buccal branch of the facial nerve, which was not described in the MRI scan. Therefore, care was taken to preserve the nerve throughout the procedure. The mass was successfully excised in its entirety and no complications were encountered. The excision lesion was 7 cm × 1.5 cm in dimensions (Figure 2). Excellent hemostasis was achieved due to the use of adrenaline and the overlying skin was closed with 5-0 Prolene sutures using a simple interrupted technique.



Fig. 2. Excision lesion and its dimensions

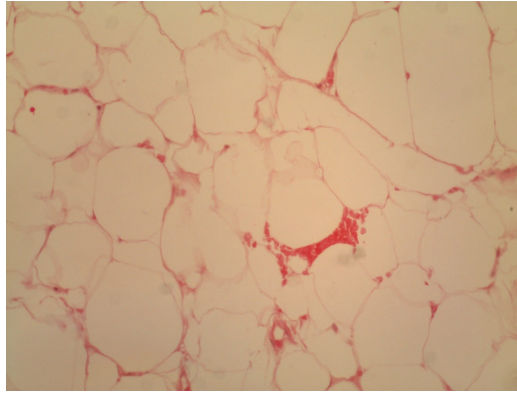
## Postoperative course

The patient was reviewed in the clinic six days postoperatively. The patient denied any pain, bleeding, or discharge from the wound site. The wound was healing well with no signs of dehiscence or infection. The sutures were removed and the facial nerve function remained intact. During the one-year follow-up, the patient remained asymptomatic without any evidence of complication or

recurrence of the mass.

## Histopathology

Histopathological examination of the excised tissue confirmed the diagnosis of a lipoma, characterized by a well-circumscribed mass composed of mature adipocytes without any atypia or malignancy (Figure 3).



**Fig. 3.** Histology of the excision lesion showing adipocytes

## DISCUSSION

Buccal lipomas occur between the fourth and sixth decade of life with the peak incidence in the 5<sup>th</sup> decade [8]. Although buccal lipomas can occur at any age, they have been less frequently reported in the literature in individuals over 60 years of age [9]. Buccal lipomas typically occur in younger patients making our case notable since our patient was in his mid-60s. Although uncommon in the elderly population, buccal lipomas should still be considered in the differential diagnosis of facial masses [10].

The patient's history of hypertension and diabetes presented potential perioperative challenges, such as maintaining hemostasis during the surgery. The use of adrenaline in such small surgeries is a personal preference of the surgeon and not a common practice. In our experience, using adrenaline during the surgery provided excellent hemostasis and allowed better visualization of the operative field. It was especially useful in our case as the lipoma was near a nerve, which was not highlighted during the pre-operative imaging. Therefore, the use of adrenaline, especially in patients with relevant co-morbidities such as hypertension, can prove to be instrumental [11].

MRI can play a crucial role in the diagnosis and characterization of lesions occurring in a complex anatomical region, such as the buccal space. MRI is highly sensitive and can help differentiate buccal lipomas from other soft tissue tumours such as liposarcomas [11]. The key MRI characteristics of buccal lipomas, like all other lipomas, include a well-circumscribed and homogenous mass. These masses appear hyperintense on T1 and T2-weighted images and show no or minimal contrast enhancement. Additionally, fat-suppressed sequences show signal suppression. These features favour the diagnosis of a benign and fat-rich lipoma compared to other masses of the buccal region [10, 11]. Although lipomas do not invade the surrounding facial structures, it is not unlikely for

them to lie near other facial structures, such as the facial nerve or its branches. MRI scans also help delineate such relations [10, 11].

The surgical excision of buccal lipomas requires a meticulous technique, especially in cases of large lipomas where they can lie close to other anatomical structures. Intraoperative damage to the facial nerve or its branches can lead to facial asymmetry, facial weakness or paralysis, which can have functional and cosmetic implications for the patients [8]. Although an MRI scan should be able to tell if a lipoma lies close to a critical anatomical structure it was not picked up during the pre-operative MRI scan in our case. It was only noted during the procedure that the lipoma was close to the buccal branch of the facial nerve. Therefore, having a clear surgical field and careful dissection of the mass can help prevent an unnecessary injury to other anatomical structures. The successful preservation of nerve function in this case illustrates the importance of a meticulous surgical approach.

## CONCLUSION

This case of a large buccal lipoma in an elderly patient highlights several important considerations for the diagnosis and management of buccal lipomas. Buccal lipoma should be considered a possible diagnosis in a patient presenting with slow-growing and painless facial mass irrespective of their age. MRI should be considered as a modality to help with the diagnosis and surgical planning as it can delineate the benign or malignant nature of the lesion and its relation to other important anatomical structures. The peri-operative use of adrenaline can help improve hemostasis and improve views during dissection of the mass. Finally, the meticulous dissection of the mass to ensure preservation of the facial nerve during surgery is crucial in achieving a successful outcome with no postoperative complications.

REFERENCES

<ol style="list-style-type: none"> <li>1. Basheer S, Abraham J, Shameena P. Intraosseous lipoma of mandible presenting as a swelling. <i>J Oral Maxillofac Pathol.</i> 2013;17:126-128.</li> <li>2. Adoga AA, Nimkur TL, Manasseh AN. Buccal soft tissue lipoma in an adult Nigerian: a case report and literature review. <i>J Med Case Rep.</i> 2008;2:1752-1947.</li> <li>3. Kumar LKS, Kurien NM, Raghavan VB. Intraoral lipoma: a case report. <i>Case Rep Med.</i> 2014;2014:480130.</li> <li>4. Egado-Moreno S, Lozano-Porras AB, Mishra S. Intraoral lipomas: review of literature and report of two clinical cases. <i>J Clin Exp Dent.</i> 2016;8:603.</li> <li>5. Wong NACS, O'Mahony O. Intramucosal fat is uncommon in large bowel polyps but raises three differential diagnoses. <i>J Clin Pathol.</i> 2019;72:562-565.</li> <li>6. Hoseini AT, Razavi SM, Khabazian A. Lipoma in oral mucosa: two case reports. <i>Dent Res J.</i> 2010;7:41-43.</li> </ol>	<ol style="list-style-type: none"> <li>7. Park BG, Choi DJ, Park JW. Oral cavity lipoma: a case report. <i>J Korean Assoc Oral Maxillofac Surg.</i> 2015;41:213-216.</li> <li>8. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma of the oral and maxillofacial region: Site and subclassification of 125 cases. <i>Oral Surg Oral Med Oral Pathol Oral Radiol Endod.</i> 2004;98:441-450.</li> <li>9. Barnes L, Eveson JW, Reichart P, Sidransky D. <i>World Health Organization Classification of Tumours: Pathology and Genetics of Head and Neck Tumours.</i> Lyon: IARC Press; 2005; 85:74.</li> <li>10. Murphey MD, Carroll JF, Flemming DJ, Pope TL, Gannon FH, et al. From the archives of the AFIP: benign musculoskeletal lipomatous lesions. <i>Radiographics.</i> 2004;24:1433-1466.</li> <li>11. Kransdorf MJ, Murphey MD. <i>Imaging of Soft Tissue Tumors.</i> Philadelphia: Lippincott Williams &amp; Wilkins; 2006.</li> </ol>
---	--