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(CASE REPORT)

Intra-Jugal Lipoma: Surgical Management Through An Intraoral Approach : A Case Report

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Abstract

Lipomas are benign mesenchymal tumors composed of mature adipocytes. Intraoral localization is uncommon, accounting for only a small proportion of oral cavity tumors. The jugal region represents one of the most frequently affected intraoral sites.

We report the case of a 65-year-old woman presenting with a progressively enlarging left jugal swelling evolving over one year. Clinical examination revealed a soft, painless, well-circumscribed mass with normal overlying mucosa and no functional impairment. Facial computed tomography demonstrated a homogeneous, well-limited lipomatous lesion measuring 30.6 × 35 × 71 mm within the left jugal and masticatory space.

Complete surgical excision was performed through an intraoral approach under general anesthesia. Histopathological examination confirmed the diagnosis of intra-jugal lipoma composed of mature adipocytes without atypia. Postoperative recovery was uneventful, and no recurrence was observed after six months of follow-up.

Intra-jugal lipoma is a rare benign tumor with nonspecific clinical presentation. Imaging plays a key role in diagnosis and surgical planning. Complete intraoral excision provides excellent functional and aesthetic outcomes with a low recurrence rate.

Keywords : Intraoral lipoma; Lipomatous mass; Intra-jugal lipoma; Intraoral surgery

1. Introduction

Lipomas are benign mesenchymal tumors composed of mature adipocytes and represent the most common soft tissue tumors in adults [1]. However, their occurrence in the oral cavity remains uncommon, accounting for approximately 1–4% of all benign oral lesions [2]. Intraoral lipomas may arise in various anatomical locations, including the tongue, floor of the mouth, lips, palate, and buccal mucosa, with the jugal region being one of the most frequently affected sites because of its rich adipose tissue content [3].

We report a case of intra-jugal lipoma successfully managed through an intraoral surgical approach with favorable functional and aesthetic outcomes.

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2. Case report

A 65-year-old woman presented with a progressively enlarging swelling of the left jugal region evolving for approximately one year. Clinical examination revealed a soft, mobile, painless, and well-circumscribed left jugal mass covered intraorally by normal mucosa. No trismus, mastication discomfort, cervical lymphadenopathy, or general health deterioration was noted.

Facial computed tomography demonstrated a homogeneous, well-limited lipomatous lesion located in the left jugal and masticatory space, measuring 30.6 × 35 × 71 mm, without contrast enhancement, consistent with a benign lipomatous tumor (Figure 1).

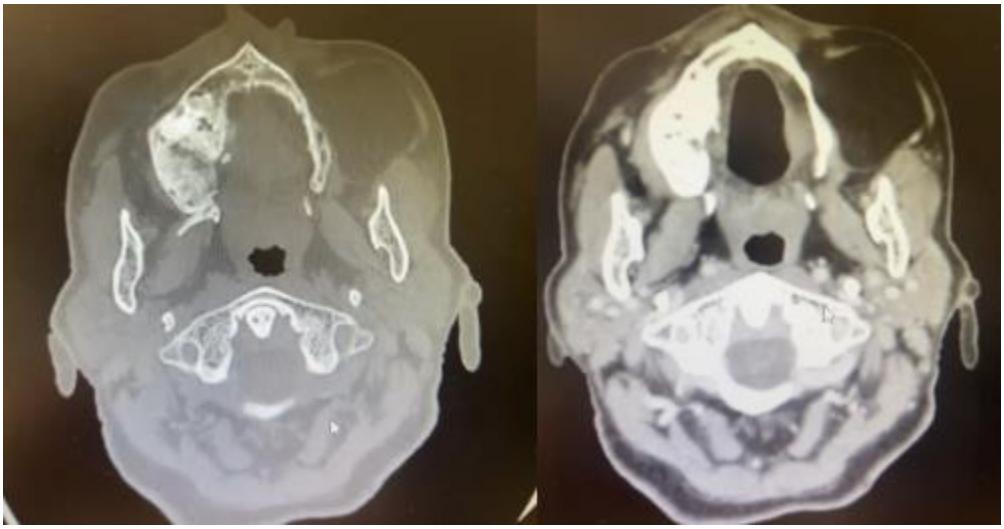

Figure 1 Axial computed tomography images demonstrating a well-circumscribed homogeneous lipomatous lesion occupying the left jugal and masticatory region, without significant enhancement after contrast administration, consistent with an intra-jugal lipoma

Given the clinical and radiological findings, complete surgical excision was indicated. The procedure was performed under general anesthesia using an intraoral approach, allowing direct access to the lesion while avoiding visible cutaneous scarring. Intraoperative dissection revealed a well-encapsulated lipomatous mass that was completely removed en bloc while preserving adjacent anatomical structures (Figure 2 and 3)

Figure 2 Intraoperative images demonstrating surgical dissection and complete excision of a well-encapsulated intra-jugal lipoma through an intraoral approach

Figure 3 Macroscopic appearance of the operative specimen after complete excision of the intra-jugal lipoma

Histopathological examination confirmed the diagnosis of intra-jugal lipoma composed of mature adipocytes without cytonuclear atypia or lipoblasts.

Postoperative recovery was uneventful, with no injury to Stensen's duct, facial nerve dysfunction, hemorrhagic complications, or infection. After six months of follow-up, no recurrence was observed.

3. Discussion

Lipomas are common benign tumors of mesenchymal origin, but their intraoral localization remains rare [1]. The jugal region represents one of the most frequent intraoral sites because of the abundance of adipose tissue in the buccal fat pad [3]. Although the exact pathogenesis remains unclear, several hypotheses including trauma, chronic irritation, endocrine disorders, obesity, and genetic factors have been proposed [4].

Clinically, intra-jugal lipomas typically present as painless, slow-growing masses with soft consistency and well-defined margins [5]. Their indolent evolution often explains delayed consultation and the large size observed in some patients, as in our case.

Imaging is essential for lesion characterization and surgical planning. CT usually reveals a homogeneous hypodense lesion with fat attenuation values ranging from −50 to −150 Hounsfield units [6]. MRI may provide superior soft tissue contrast and better assessment of deep extension when required [7].

The differential diagnosis includes epidermoid cysts, salivary gland tumors, fibromas, ranulas, lymphangiomas, and atypical lipomatous tumors [8]. Histopathological examination remains the gold standard for definitive diagnosis and for excluding malignant lesions such as liposarcoma [9].

Surgical excision remains the treatment of choice for intraoral lipomas [10]. The intraoral approach offers several advantages, including absence of external scarring, direct access to the lesion, shorter recovery time, and excellent cosmetic outcomes [11]. However, careful dissection is mandatory because of the proximity of important anatomical structures, including Stensen's duct and branches of the facial nerve.

The prognosis of intra-jugal lipoma is excellent, with recurrence being exceptional after complete excision [9,11]. Our patient showed favorable postoperative evolution without recurrence after six months of follow-up.

4. Conclusion

Intra-jugal lipoma is a rare benign tumor that should be considered in the differential diagnosis of painless jugal swelling. Imaging contributes significantly to diagnosis and surgical planning. Complete excision through an intraoral approach represents an effective treatment with excellent functional and aesthetic outcomes.

Compliance with ethical standards

Disclosure of conflict of interest

The authors declare no conflict of interest.

Statement of ethical approval

Ethical approval was not required for this case report according to institutional policy.

Statement of informed consent

Informed consent was obtained from the patient for publication of this case report and accompanying images.

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